Harveian Lectures
ON
SYPHILIS.

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BY JAMES R. LANE, F.R.C.S.,

SURGEON TO ST. MARY'S HOSPITAL, CONSULTING SURGEON TO THE LONDON LOCK HOSPITAL.

LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—The subject I have chosen for these lectures is, I am well aware, a very difficult one. There may be many who think that too much has been written about it already, and no doubt a great deal has been written which is either obscure, or misleading, or erroneous; but I fear that at present this is inherent in the nature of the subject, and arises out of the uncertainty and confusion in which, on many important points, this mysterious and terrible disease is still involved. Nevertheless, it has always been a favourite subject of speculation to many of the ablest and deepest thinkers in the ranks of medicine, and to them is owing the important advance which has been made in recent years, although unfortunately there is still so much which remains unsettled and obscure.

In illustration of this, I would refer to the discussion which was inaugurated at the Pathological Society in the early part of this year by Mr. Jonathan Hutchinson. Mr. Hutchinson has laboured at this subject most assiduously, and in his paper he put forward many of the conclusions to which his unwearying industry and acute intelligence had led him on a variety of important points in the pathology of this disease. In the long debate which followed, there was a display of eloquence and ability, of which the profession in this country has good reason to be proud; but those who, like myself, were either present, or carefully followed the published reports in the hope of finding themselves standing on somewhat firmer ground than before, must, I fear, have been very much disappointed. Are there two poisons or only one? Is phagedæna so intimately related to syphilis that the latter may be looked upon, to use Mr. Hutchinson's words, as "parent of all phagedæna"; or is phagedæna, as commonly supposed, merely an accident of syphilis, as it may, under certain conditions, be an accident of any other wound or ulcer? Is syphilis a specific contagious fever like scarlatina or small-pox, running an equally definite and regular, though much more protracted, course; "a fever diluted by time"; or, as urged during the debate, are not the divergencies as striking as the analogies? Are secondary manifestations symmetrical and tertiary ones non-symmetrical; and can this distinction be made practically available in diagnosis? Is syphilis a blood disease only in the secondary period, and are the tertiary symptoms merely the sequelæ of a condition which has passed away? Does hereditary transmissibility cease when the tertiary period is reached, or does it not? *Tot doctores, tot doctrinæ.* On these and on various other points there was the greatest possible difference of opinion, and each speaker in succession could adduce arguments, of variable plausibility, in favour of his own particular belief.

In what I am about to say I shall refrain as far as possible from theoretical speculation, and I hope to avoid adding any contribution of my own to the uncertainties which prevail. My aim is a less ambitious one. I purpose to be historical rather than dogmatical, for it has appeared to me that I could best utilise this occasion by tracing as concisely as possible the steps by which progress has been made, and considering what are the points on which we have good reason to think we stand on firm and positive ground, and also what are those other points on which more light is urgently needed.

The study of venereal diseases was for a long time largely influenced, and is influenced to this day to no inconsiderable extent, by the writings of John Hunter. His treatise on this subject was among his later publications, and at the time of its appearance in 1786 he was at the height of his great reputation. It is not surprising, therefore, that his doctrines were widely accepted, and that the general belief in them was not to be easily shaken. With the greatest admiration for John Hunter, whose insatiable appetite for work enabled him to do more than perhaps any other one man ever did towards the advancement of anatomy, physiology, and scientific surgery, I think his treatise on venereal disease, valuable as it is in many respects, is one of the least happy of his efforts. It has been, as I think, very correctly estimated by his commentator, Mr. Babington, in Palmer's edition in 1837, whose words I will quote rather than presume to offer any criticism of my own. Mr. Babington says of this treatise: "It is not without its defects, and the reputation of John Hunter should rest more on his other works than on this. Many of his remarks are rather theoretical than practical, and some of his doctrines have not obtained that general assent which has crowned most of his other labours." With reference to his other researches, Mr. Babington remarks that "it is more to the activity of his inquiries than to the strength of his reasoning powers that we owe his discoveries. Indeed, his powers of reasoning were scarcely on a level with his other faculties, but the errors of his logic were perpetually corrected by the variety and accuracy of his experiments. In the venereal disease he had little opportunity for the exercise of his usual means of investigation, for experiments on animals are impossible in this case, and dissections give little information."

Hunter described that form of venereal sore which is characterised by indolent induration, and which bears his name to this day, with a lucidity and accuracy which leave little to be desired; but one cannot help wondering that, with his marvellous powers of observation, he should have said so little about that other and more frequent kind of sore, which must have constantly come under his notice, which runs an equally definite and regular course, but in which induration is conspicuously absent.

But if Hunter failed to appreciate this distinction, it was equally missed by his contemporaries and for a long time by his successors, with the exception perhaps of Mr. Evans, who in 1819 described very accurately what we now call the soft sore by the name of venerola vulgaris, and who pointed out that mercury was not necessary for its cure. In fact, it was not till quite a recent period that the difference in the characteristics of the two forms of venereal sore, so important in its bearings on pathology and practice, have been clearly and intelligibly laid down.

Hunter's experiments in inoculation, which he was the first to practise, led him, in opposition to his predecessors, to disbelieve in the contagion of secondary syphilis; a view which was afterwards adopted by Ricord, also misled by his inoculations, and which has only within my recollection been finally refuted. Hunter also denied the hereditary transmission of the disease, which had been previously believed in, although, under the head "Diseases resembling Syphilis," he records several typical examples of it.

But another and perhaps more important point was Hunter's adhesion to the doctrine, then pretty generally accepted, of the identity of the poisons of gonorrhœa and syphilis; although some of his contemporaries, and notably Benjamin Bell, had seen through the fallacy and were doing their best to confute it. Hunter firmly upheld this identity, and taught that the only difference between the two diseases depended upon the nature of the surface to which the poison was applied; that it caused ulceration when it acted on a cutaneous surface, but only a purulent discharge, without breach of surface, when applied to a mucous membrane; and that the morbid secretions in either case might give rise to either set of symptoms according to the structure with which it came in contact. Holding this belief, he sought to verify it by the experiment, now known to have been performed on himself, the result of which was so unfortunate—in the first place, from its effects on his own person, and, secondly, from the influence which it had in retarding the development of a more accurate knowledge of the nature of the disease.

Hunter inoculated himself on the glans and prepuce with the matter from a gonorrhœa; the result was the development of primary sores, followed after some months by secondary manifestations, from which he was not completely cured for three years. Now that we are beginning

to know something of the remote effects of syphilis on internal organs, may I not suggest, in connexon with Hunter's own case, that the extensive arterial and valvular disease from which he subsequently suffered, and which was the cause of his sudden death in St. George's Hospital many years afterwards, may possibly have been a remote tertiary result of this unfortunate inoculation.

Ricord, more than forty years later, when labouring to disprove the identity of gonorrhœa and syphilis, explained the unusual result of the inoculation of gonorrhœal matter in Hunter's case by the hypothesis of a concealed urethral chancre. But there is now another and perhaps better explanation in the well-proved communicability of syphilis by the morbid secretions and even by the blood of persons suffering from it in its secondary form. Neither Hunter nor Ricord believed in this mode of infection, and it probably never occurred, therefore, to Hunter to inquire whether the patient from whom he procured the gonorrhœal matter was, or had recently been, affected with constitutional syphilis. If he were so, the abnormal result would not now be a matter of surprise.

The consequences of the support afforded to this doctrine by an authority so eminent were most unfortunate. Mercury was then looked upon as the only antidote for syphilis; those who believed that gonorrhœa was a form of syphilis, therefore, gave mercury in every case of gonorrhœa, and a course of mercury in those days meant salivation to the extent of the discharge of two or three pints of saliva in the twenty-four hours, continued over a period of two or three weeks. Hunter, it is true, says, speaking of gonorrhœa: "I doubt very much of mercury having any specific virtue in the *cure* of this disease, for I find that it is as often cured without mercury as with it." But he also says: "It is always necessary to have in view the possibility of some of the matter being absorbed and afterwards appearing in the form of a lues venerea, to prevent which I should be disposed to give small doses of mercury internally."

Benjamin Bell, I have already said, would not admit the identity of syphilis and gonorrhœa, and in his work on Venereal Diseases, published in 1792, he put forward arguments which very conclusively disproved it. He at the same time strongly condemned the use of mercury in gonorrhœa. Bell also related some valuable experiments by inoculation performed by three medical students on their own persons, the result of which was in direct contradiction to that obtained by Hunter on himself. All three introduced the matter of gonorrhœa between the prepuce and glans, and allowed it to remain; the result was inflammation—balanitis, in fact, but no chancre. Two of them introduced chancrous matter into the urethra; the result in both was urethral chancre, followed by bubo, and in one by secondary symptoms, but no gonorrhœa.

Hunter's views on the identity of these two diseases do not appear to have found much favour with the writers who succeeded him. Nevertheless, the practice of giving mercury for gonorrhœa was not till long afterwards generally abandoned. In fact, spite of authoritative teaching, we find Sir A. Cooper, in his lectures published in 1829, expressing himself in the following fashion, which is quite refreshing in its uncompromising thoroughness. He says, "No greater folly, or indeed cruelty, can be committed than that of giving mercury for the cure of this disease; a man must be grossly ignorant or shamefully negligent of the duties which he owes to the character of his profession and to the common dictates of humanity if he persists in doing so. I scarcely ever enter the foul wards, because patients are compelled to undergo so infamous a system of treatment that I cannot bear to witness it. To compel an unfortunate patient to undergo a course of mercury for a disease which does not require it is a proceeding which reflects disgrace and dishonour on the character of a medical institution. If you go to a patient in the foul wards at the end of his course and ask him how many times he has rubbed in, he will generally answer twenty-eight times. If you ask him whether he is salivated, he will tell you that he spits three pints a day; but ask him whether his gonorrhœa is cured, he will reply, 'No, I have a clap still upon me.'" The practice must still have possessed considerable vitality—in some quarters, at all events—to induce Sir A. Cooper to speak to a class of students in such terms as these on the practice of his own colleagues in his own hospital.

But even later than this, in 1833, Mr. Wallace, of Dublin, an able and acute observer, published a work in which this unfortunate error was again put prominently forward. He described gonorrhœa as a variety of syphilis, calling it "catarrhal primary syphilis," and believed it to be capable of conveying by contagion the ulcerative form of primary disease, and also of giving rise to subsequent constitutional infection, to prevent which latter result he advised the use of mercury for its cure.

It is to Ricord that the credit of finally and thoroughly disproving the identity of gonorrhœa and syphilis is undoubtedly due. In his work published in 1838 he gives the result of a very large number of inoculations with gonorrhœal matter, in none of which was any result produced. His experiments and his arguments on this subject have been almost universally accepted as conclusive; but it is worthy of remark that, reckoning from Hunter's time, it was more than forty years before this happy and, as we should now think, obvious result was arrived at. *Magna est veritas, et prevalebit*; but the proverb, it will be observed, wisely refers its fulfilment to the future.

I may have dwelt upon this matter at perhaps too great length, but I have done so because it shows how much evil may arise when theories having an important bearing on practice are put forward by eminent authorities on inadequate grounds, and how much time and labour may have to be expended in their refutation.

In Ricord's teaching may be said to have commenced a new era in the study of venereal diseases. He has, in my opinion, done more than any living authority to elucidate the subject of syphilis, and by his numerous and carefully conducted experiments to pave the way towards clearness and precision where there had hitherto been so much conjecture and confusion. Many of his earlier conclusions have no doubt required modification and correction, and have, indeed, been since greatly modified by himself; but though he may have been too hasty in his deductions, the experiments which he performed and the facts which he observed and recorded will always remain amongst our most valuable possessions.

Ricord performed his experiments in the venereal hospitals in Paris in the years 1831 to 1838, at which latter date he published the results in a collected form. He made an enormous number of inoculations, and the following are, briefly stated, the principal conclusions at which he arrived. That the pus of a chancre properly inoculated always produces a chancre, provided the pus be taken during the period of progress, and not during the period of repair. Consequently the production of a characteristic pustule by inoculation with the matter of a sore was certain proof of the syphilitic nature of that sore; and conversely, if the result of the inoculation were negative, the sore could not have been truly syphilitic. That the pus from the inoculated pustule again produces a chancre, and the series may thus be continued *ad infinitum*. That there is no period of incubation, but a continuous evolution from the moment of contact to the complete formation of the ulcer. That the matter of a suppurating syphilitic bubo—i.e., a bubo caused by direct absorption from a syphilitic sore—is as inoculable as the matter of the original sore itself. That it is rarely, if ever, before the fifth day that the induration of a chancre commences; that it is usually the indurated chancre which is followed by secondary infection, the induration appearing to indicate that the poison has penetrated further into the system. That the secretion from mucous tubercles or any other form of secondary and tertiary affections will produce no result when inoculated, and that secondary affections are never communicable in any other way than by hereditary transmission. That in tertiary affections the virulent principle seems to be completely transformed, and they are neither inoculable nor hereditarily transmissible, but may be the cause of the transmission of scrofula, which is often only a degenerated syphilis.

This was Ricord's earlier teaching; it was clear, precise, and practical, and it has the merit, at all events, that there is never any difficulty in understanding what he means. In estimating its value, it must be remembered that his inoculations were always performed on the individuals diseased. He very properly condemned, and always refrained from practising, the inoculation of syphilitic matter on healthy subjects. This led him into error in several important particulars. It induced him to deny the communicability

of syphilis by the secretions of its secondary lesions, and to place too absolute a reliance on the result of inoculation as a means of diagnosis; while he failed to appreciate the period of incubation which precedes the development of the infecting form of sore in many cases. His failing and that of his school was in being too hasty and positive in his conclusions, and in aiming at more precision than the subject itself admits of, unmindful that there is no finality in medicine. He and his followers might have reflected with advantage, as indeed may we all, on the following words of wisdom by the late Dr. Latham. In the preface to his clinical lectures, Dr. Latham deprecates summary conclusions in practical medicine, and he says: "Let a man use his own experience as best he can for the present, but let him not, upon the strength of it, rebuke the experience of all past times, and dictate to the experience of all future; for if he live long enough nothing is more likely than that he may find himself fallen under his own reproof, and inconveniently confronted by his own maxims."

Ricord, at the time of which I have been speaking, and for many years afterwards, was the most popular teacher in Paris. His doctrines were accepted and promulgated by a large number of disciples, and met with almost universal acceptation. It was difficult at that time to believe that they could ever be seriously shaken. *Vanitas vanitatum!* Let us see what were the prevailing opinions twenty years later among the modern French school of writers on syphilis, which was composed mainly of the pupils of Ricord. So far from holding to the doctrine which he originally taught, they contended that the true syphilitic sore—that which infects the constitution—is never inoculable on the individual bearing it, or on anyone who is or has been the subject of constitutional syphilis. A successful inoculation therefore, so far from being a proof of syphilis, should be held to be conclusive that the sore from which the matter was taken was not truly syphilitic—not infectious, that is, as regards the constitution. It was affirmed that there are two kinds of venereal ulcers, representing two perfectly separate and distinct diseases, and each only capable of producing its like. One, the true chancre, is never inoculable on the same individual, is usually accompanied by induration, *always* infects the system, but never occurs more than once in the same person. This is accompanied by an indolent painless enlargement of the nearest lymphatic glands, which never suppurate unless from some accidental irritation. The other, the unindurated or soft sore, is the more common of the two; is an entirely local disease and *never* infects the system; is always inoculable on any person, whether at the time or previously the subject of syphilis or not; and may be contracted any number of times. This is not necessarily attended by any affection of the lymphatic glands; but when it is, the action induced is very likely to end in suppuration, and the matter from the bubo is as inoculable as that of the original sore. This difference in the action of the two kinds of sore on the lymphatic system had not till then been clearly made out, and was, without doubt, a very valuable addition to our knowledge.

This duality view has no analogy with Mr. Carmichael's theory, promulgated in 1818, of a *plurality* of poisons. Mr. Carmichael described five varieties of the primary affection, each characterised by its own peculiar secondary consequences. His views excited a good deal of attention at the time, but they did not stand the test of investigation, and they never obtained a permanent hold on professional opinion.

The modern theory of the duality of the venereal virus, originating in the pupils and successors of Ricord, has been very widely, though by no means universally, accepted. It will be interesting to inquire how this striking change was brought about.

It was led up to, to a considerable extent, by Ricord himself. In his Letters, published in 1850, he laid down, amongst other things, that the specific induration is certain proof of constitutional infection; it is the transition from the primary to the secondary condition; and that a sore, when it becomes indurated, soon loses its principal characteristic, that of the production of inoculable pus. That a patient who has had an indurated chancre will never have another. That the indurated sore with chronic ganglionic enlargement is invariably followed by secondary disease. That if the non-indurated sore sometimes apparently produced a like result, there must have been some error in diagnosis.

It was Bassereau, a pupil of Ricord, who, in 1852, first boldly put forward the theory that the two kinds of sore indicated two entirely distinct contagious diseases, having no relation to each other, and each invariably only transmitting its like. He arrived at this conclusion by the confrontation, as he termed it, of a large number of patients with the individuals from whom they had contracted, or to whom they had communicated, the disease. That is to say, he availed himself of every opportunity he could find of examining both parties, and he found that in every case those affected with chancres followed by secondary infection had derived their disease from persons similarly affected with chancre and secondary infection. On the other hand, those affected with chancres not causing symptoms of general syphilis had, without exception, derived their disease from persons who, like themselves, were the subjects of sores whose action was limited to the point first infected.

At the time when Bassereau put forward these views on the duality of the virus, the doctrine that the syphilitic diathesis, like scarlatina or small-pox, did not repeat itself in the same individual, was held pretty generally in France, and was gaining ground gradually elsewhere; but the inoculability of the indurated sore on the individual bearing it had not as yet been called in question. It had been noticed, however, by Ricord and others, that when so inoculated it did not produce its like, but gave rise to a sore precisely similar to that caused by inoculation with matter from a soft chancre. Therefore, it was argued by M. Clerc, it was not necessary to imagine with Bassereau the existence of two poisons, but that the soft sore was the product of the hard sore when conveyed to a person already syphilitic, that it had permanently lost its infecting property, so that if transmitted further to a person who had never had syphilis it would still be transmitted as a soft sore, without any power of conveying general infection. To this hybrid or degenerated sore Clerc gave the name of chancroid.

Afterwards, in 1857, Fournier, who adopted the duality theory, argued that, although the hard sore when inoculated on a patient already syphilitic might, in virtue of the incapacity of anyone to contract true syphilis twice, produce a sore exactly resembling a soft chancre, yet, if further transmitted to a third person who had never had syphilis, it would resume its original character, and give rise to constitutional infection. It was, in fact, only a hard sore temporarily disguised, and still possessed of its virulent property when planted in a suitable soil. All this was very ingenious, but after a time, when Fournier and others found a difficulty in inoculating the indurated sore on the bearer of it, the theory was cast aside as unnecessary, for they jumped to the conclusion that the indurated sore is never inoculable on a syphilitic patient, and that the examples of it which they had hitherto seen and believed in were due to a misapprehension of the real nature of the sore inoculated from, or to some other accidental cause.

It was Ricord who first noticed the difficulty of inoculating from the indurated sore as its progress advanced. Mr. Lee, writing in 1856, attributed this difference to the nature of the inflammatory action set up, that belonging to the indurated sore being of the adhesive, that belonging to the soft sore of the suppurating character. In the first case there is only a thin serous discharge, destitute of pus-globules; in the latter there is a well-developed purulent secretion, and it is on this difference that the difference in the inoculability depends. Mr. Lee afterwards, in 1859, pointed out that if the indurated sore were artificially irritated and made to secrete pus, it became inoculable without much difficulty, but he described the results obtained as different from those following inoculation from soft suppurating sores, inasmuch as they more rapidly dried up, and the inflammation set up partook of the adhesive character, like the sore from which it was obtained.

Mr. Lee's view, that the secretion from an indurated sore artificially irritated would produce a pustule when inoculated, has been verified amply by subsequent experimenters; but it has not been found that the sores so produced have had any of the characters of the indurated sore as described by Mr. Lee, but, as stated by Ricord, have presented appearances precisely similar to those produced by inoculation from a soft, suppurating sore.

Thus was developed the doctrine that primary venereal ulcers were of two kinds, representing two distinct forms of

disease, which has been accepted and followed by so many excellent authorities. The theory is plausible and tempting, and the separation is practically of great value as a general rule, but there are objections to its acceptance as an absolute law which have always appeared to me to be insuperable. I propose to touch upon these shortly.

NOTE ON THE CAUSE OF THE CIRRHOSIS WHICH FOLLOWS OBSTRUCTION OF THE BILE-DUCTS.

BY J. WICKHAM LEGG, M.D., F.R.C.P.,
DEMONSTRATOR OF MORBID ANATOMY IN ST. BARTHOLOMEW'S HOSPITAL.

MM. CHARCOT and GOMBAULT have lately published[1] the results of their observations on the histology of the liver after ligature of the bile-duct. They find an increase of the connective tissue in the liver. It is, perhaps, natural that I should be pleased to find such distinguished observers confirming one of the most important results of my undertakings. It is unnecessary for me to repeat the heads of their observations, as a long abstract of their paper was published on Sept. 16th, 1876, in THE LANCET. Another important result of my experiments, the rapid disappearance of glycogen from the liver within a few hours after ligature of the duct, has also been confirmed by Professor von Wittich, of Königsberg, who is well known for his great knowledge of all that pertains to the presence of glycogen in the body.

In my paper in the St. Bartholomew's Hospital Reports (1873, vol. ix., p. 161) I ventured to set forth a theory that the overgrowth of the connective tissue within the liver after ligature of the duct was due to the disturbance set up in the porta by the presence of the ligature itself. Bearing in mind the observations of Solowieff,[2] who found a like increase of the connective tissue after ligature of the portal vein, I began to think that the cause of the overgrowth might be the same in both—viz., the presence of the ligature in the porta. Added to this, I found, in the few cases which I was able to examine after death, that the amount of overgrowth in the connective tissue in men seemed to depend greatly upon the kind of obstruction. Thus it was greatest of all in a case of congenital deficiency of the ducts.[3] The cirrhosis was more intense than I have seen it in animals. Then, when a rough angular gall-stone was impacted in the duct, the overgrowth was considerable. It was less, however, when a cancerous head of the pancreas pressed upon the duct, even if the obstruction were complete. Of this kind I met with a most important instance in a man who died of complete obstruction to the hepatic duct from the pressure of an hydatid cyst within the liver, and which I have published in the "Transactions of the Pathological Society of London" (1874, vol. XXV., p. 155). In this case the increase of the connective tissue was very slight. There was no increase within the lobules, and the connective tissue itself was free from lymphatic elements—most important evidence of the absence of active growth in the tissue. I was led at the time to explain this slight overgrowth by supposing that the smooth uniform pressure of an hydatid cyst acted differently upon the coats of the hepatic duct from that of a rough angular gall-stone.

My theory, then, was that the overgrowth of the connective tissue depended upon the nature, not the completeness, of the obstruction. I must own that I am not very well pleased with the theory myself, and should welcome any attempt to better explain the facts. MM. Charcot and Gombault have set forth a plausible and interesting theory, for which there is a good deal to be said. These observers look upon the cirrhosis as dependent upon the completeness of the obstruction of the ducts; they hold that the dilatation of the bile-ducts and the retention of the bile in the dilated ducts are important factors in the etiology of this cirrhosis. The bile is thought to undergo changes—witness the presence of vibriones—which irritate the walls and cause a development of the connective tissue around them. The cirrhosis is therefore altogether secondary to the retention of the bile.

One point in favour of this theory may be drawn from a neighbouring organ, the stomach. Whenever a chronic gastric catarrh has lasted for some time, it sets up, as Dr. Wilson Fox has shown, an overgrowth of the connective tissue in the walls of the stomach; and it does not seem unlikely that, if a chronic catarrh of the bile-ducts be set up, an overgrowth of the connective tissue of the liver should likewise arise.

There are, however, two cases which have fallen under my experience which seem to me worthy of being considered side by side with this theory. The first is the case of the hydatid cyst already mentioned. In this case the obstruction of the hepatic duct was as complete as I have ever seen it. There was, in fact, no passage from the hepatic to the common duct; the hepatic duct was dilated to the size of a man's finger; and the contents of the hepatic duct were colourless. It is probable that the complete obstruction of the duct had lasted for several weeks, if not for months. All the conditions required by MM. Charcot and Gombault's theory were present, and the overgrowth of the connective tissue ought to have been correspondingly intense. Yet the increase of the connective tissue was the least that I have ever met with; there was an absence of the lymphatic elements so commonly seen in other cases, and which are a measure of the activity of the process. This case almost caused me to distrust the truth of my own dictum, that obstruction to the ducts is followed by cirrhosis. I do not think it can be explained by MM. Charcot and Gombault's theory.

The second case is also one of which I have spoken above—the case of congenital obstruction to the ducts. Here the cystic and hepatic ducts ended at their point of junction in a blind sac, the size of a marble. It seemed to me most probable that early in fœtal life the common duct had been cut off from its relation with the duodenum, and that all the changes in the liver which followed were secondary to this obstruction. Now here a very intense cirrhosis was present, and yet the bile-ducts were in no way dilated. On cutting the liver across, it was hard to make out any bore whatever to the bile-ducts; they seemed made up of solid strings of tissue, just stained with bile—so that they were the reverse of dilated. It was next to impossible to follow the hepatic duct when once it had passed into the substance of the liver.

The whole subject of the etiology of cirrhosis, whether primary or secondary, seems sufficiently obscure. The etiology of the cirrhosis of children, of which several examples have been so lately published, lies wholly in the dark. Only a few weeks ago I met with a well-marked case in a child of seventeen months old, in which no cause could be fairly made out. The child died of tubercular meningitis. The cause of the overgrowth of the capsule of Glisson in nutmeg liver[4] does not seem to be caused by mere dilatation of the hepatic veins, since the overgrown tissue does not surround them. And in Solowieff's experiments, ligature of the portal vein was followed also by cirrhosis, an appearance hard to explain unless the theory of the disturbance in the porta be admitted. The whole subject of cirrhosis deserves a careful and attentive review, and should be studied side by side with like changes in other organs. Mr. Marcus Beck, who has paid great attention to the minute anatomy of the kidney in cases of obstruction to the flow of urine, tells me that he has always found an interstitial nephritis in such cases, and he explains this overgrowth of the connective tissue by supposing that it is formed in order to support the tubules dilated by the pressure of the urine within them. I cannot but acknowledge the ingenuity of this supposition, and consider Mr. Beck's observations of great value in a scientific comparison of the pathology of the two organs. The low pressure at which the bile is secreted, and the high pressure at which the urine is secreted, should be kept in mind in any reasoning hereafter about the two.

Green-street, W.

[1] Archives de Physiologie, 1876, p. 272.
[2] Arch. f. path. Anat. (1874), Bd. lxii., p. 195.
[3] Trans. Path. Soc. of Lond. (1876), vol. xxvii., p. 178.

[4] See my observations in the Medico-Chirurgical Transactions, 1875, vol. lviii., p. 345.

CONTRIBUTIONS TO AURAL SURGERY.

BY W. B. DALBY, F.R.C.S., M.B. CANTAB.,
AURAL SURGEON TO ST. GEORGE'S HOSPITAL.

VI.—SYPHILITIC AFFECTIONS OF THE EAR.

THERE are several ways in which syphilis may be the means of causing either permanent or temporary loss of hearing; and the most important of these, perhaps, is the extreme and irremediable deafness which is sometimes met with in the children of syphilitic parents. Next to scarlet fever, inherited syphilis may be reckoned as the most fruitful cause of deaf-mutism as it occurs in children who are born with good hearing power. This is owing to the very early age at which these children generally become deaf, and the rapidity with which all hearing is sometimes lost. Out of a large number of children who markedly inherit syphilis, only a certain proportion of them will lose their hearing; and from this large number the selection of subjects (so to speak) who are to become deaf follows no law with which we are acquainted. A similar apparent uncertainty may be observed as to the rapidity with which the hearing is lost; for whilst with some in a few months, or occasionally a few weeks, all hearing is gone, with others several years of gradually increasing deafness precedes the extreme degree which it finally reaches. With others, again, some degree of hearing power remains throughout life.

The disease under notice is essentially a nervous one—i.e., the nervous, and not the conducting part of the auditory apparatus, is at fault. It is of the utmost importance that this affection should be clearly recognised as having no connexion whatever with changes that may be found in the tympanum. I have frequently known considerable confusion to exist on this point, and in the following way:—A deaf syphilitic child is observed to show evidence of more or less tympanic disease; it is straightway argued that this local affection is due to the inherited syphilis. The child gets well under treatment, and the syphilitic affection of which I am speaking is said to have been relieved by certain remedies, the true explanation being that the syphilitic child, unaffected by syphilis so far as its ears are concerned, has had a catarrhal disorder of the middle ear, which has yielded to the ordinary remedies applicable to such cases. Or (to give another example) a child who is deaf in part from inherited syphilis, and in part from tympanic disease otherwise acquired, derives partial benefit from treatment, and the syphilitic affection is said to have been relieved. Errors of this kind are the result of a too limited observation, and to estimate clearly the value of any treatment in the syphilitic nervous affection it is necessary to notice the course of the disease as seen in those children who possess healthy tympana, together with the rest of the middle as well as the external ear in a condition of perfect health. With such as these no treatment within the knowledge of reliable authorities has the slightest influence on the hearing, and it will also be observed that vibrations of sound (which would be well heard if the tympana only were affected) conveyed through the cranial bones make no impression whatever.

Along with the impaired hearing there is almost always some other distinctive mark of syphilis: the characteristic teeth, interstitial keratitis, or both. Again, in these children there are certain limits of age at which the hearing suffers. Thus, they are born with good hearing; the most usual time at which they become deaf is early childhood (after they begin to talk), or the period between this and puberty. The eldest example in which I have observed this form of ear disease to begin was twenty-three years old, so that it may be roughly said that if adult life is reached with good hearing, these subjects do not become deaf from the same causes which produce this symptom in earlier life. Whether the seat of the lesion which impairs the functions of the auditory nerve is in the labyrinth or in the nerve before its termination in this structure, has not at present been determined. Attention was first directed to the existence of the lesion by Mr. Jonathan Hutchinson.

Acquired constitutional syphilis affects the ear both as regards the nervous and the conducting parts of it. In the first place, as is well known, it is no uncommon thing for a man to become more or less deaf whilst he is suffering from what used to be called secondary symptoms, and this without any evidence whatever of obstruction of the Eustachian tubes or affection of either tympanum. The healthy condition of these parts, the difficulty with which a vibrating tuning-fork placed on the vertex is heard, show at once that it is the nervous and not the conducting part of the ears which is at fault. Far more often than not, both ears are affected at the same time, and the deafness is very seldom anything like total; only once have I seen this to be the case, and the patient recovered his hearing in six months under treatment directed to the constitutional disorder. This is the way in which such cases get well, no treatment especially directed to the ears being necessary. However, the eccentricities of disease here, as elsewhere, show themselves, so that occasionally permanent loss of hearing will remain in one ear, even though the other has recovered its function.

It is interesting to notice, in examining this class of cases, that, as in most other affections of the labyrinth, the very high notes are frequently not heard, however loudly sounded; whilst the inability to hear low notes may be, in comparison, very slight. This, as has been noticed by Dr. Roosa, would induce us to localise the affection to the cochlea. The same favourable termination which usually distinguishes syphilitic disease of the labyrinth in the early portion of the syphilitic history of its subject (that part of the history which includes the rash and sore-throat) does not hold good in the later periods of the disorder. I mean that a patient in whom syphilis has appeared (during a period to be counted by years) in its infinite variety will, in addition to his multiform troubles, have at times added to them an intense and irremediable deafness which obviously depends on some intracranial change. Another way in which constitutional acquired syphilis affects the ears at the time of the ulcerated throat is by extension from the fances up the Eustachian tubes and into the tympana. This shows itself by the same symptoms as an ordinary catarrh of the middle ear; and so, in addition to the local management of the throat and the medicinal management of the patient, it is necessary to make use of the general methods of treatment for catarrh of the middle ear, such as the air douche and injections to the tympana as may be required. It may be mentioned, in passing, that with these patients, if an Eustachian catheter is used, it should be put aside for the exclusive service of that patient, as syphilis has been occasionally communicated by carelessness in this respect.

As a rule, these cases make an excellent recovery, but sometimes the catarrhal affection proceeds to suppuration in the tympanic cavity, and consequent rupture of the membrane. In one case under my care about a year ago, where this had taken place (the patient having an ulcerated throat at the time), the character of the ear complication was well shown; the discharge from the tympanum in its passage outwards had excited the growth of syphilitic warts at the orifice of the external ear—to me a new landmark in the many routes adopted from time to time by syphilis.

ELECTRO-THERAPEUTICS.

BY J. DIXON MANN, L.K.Q.C.P.I.

I.—ON BATTERIES.

THE great progress made during the last few years in the use of electricity as a therapeutic agent justifies the expectation that in the future greater precision will mark its administration, and that more trustworthy results will be obtained. To this end, our knowledge of the apparatus employed in electro-therapeutics should have a scientific basis; otherwise the difficulties of the medical electrician become intensified by the uncertainty necessarily attending his operations. I was induced to enter into a series of experimental investigations relative to the comparative merits of medical batteries by the often repeated inquiry, "Which is the best form of constant-current battery?"

and as I am not aware that the results of any such experiments have been published, I venture to hope that the present paper may afford some practical information.

The great desideratum in a medical battery is constancy; by which is meant, the power of giving a steady current. The term "constant current" is generally used by medical men as synonymous with voltaic or battery current, in contradistinction to the interrupted or faradaic current. This nomenclature, however, is defective. The induction current is necessarily an interrupted current, requiring for its causation a series of interruptions or breaks in the battery current, each break inducing a wave of electricity in the coil, and by rapid sequence forming a current of detached impulses like the links of a chain. The battery current, on the other hand, may be either continuous or interrupted. It is continuous so long as the circuit is closed, but by alternately opening and closing the circuit it is converted into an interrupted "constant current," which involves a confusion of ideas: it is better to differentiate the currents as voltaic and faradaic.

The amount of electricity evolved by a cell depends, firstly, upon its electro-motive force; and, secondly, upon its internal resistance, or that resistance which the current encounters in passing through the fluid in the cell from one element or battery plate to the other, and also upon the external resistance, or that which is interposed between the electrodes. In other words, the current evolved by a given battery is equal to the sum of the electro-motive force divided by the total resistance. The annexed table shows the mean results of a series of experiments I made to determine the electro-motive force and internal resistance of the ordinary forms of medical battery.

Name of Battery.	Electro-motive force, in volts.[1]	Internal resistance, in ohms.[2]
Stöhrer	1·065	·338
Mayer and Meltzer ...	1·060	·350
Foveaux	·710	1·039
Daniell-Muirhead	·863	20·500
Leclanché	1·443	13·500
Clamond et Gaiffe... ...	1·177	23·000

[1] British Association unit of electro-motive force.
[2] " " " resistance.

The only battery in this table which can be said to be really constant is the Daniell-Muirhead; it, even with a circuit of small resistance, will maintain a steady current for hours, or even days. The table shows that this battery possesses a low electro-motive force with a high internal resistance, the result being that its action on the skin is much less painful than those batteries in which the electro-motive force is higher and the resistance lower. The Daniell-Muirhead is, *par excellence*, THE medical battery; though its one defect, want of portability, restricts its employment to the consulting room and hospital. It consists of a number of containing cells charged with water, in each of which are placed the positive element, consisting of unamalgamated zinc, and a porous cell charged with a saturated solution of sulphate of copper, containing a plate of copper, forming the negative element. The battery is put up for telegraphic purposes in trays of ten cells, five trays being sufficient for general use. It is well to make the connexions so as to be able to use the cells in the first tray in couples; the remaining trays may be used in multiples of five. If possible, the battery should be placed in a cellar where the temperature is low and the air not very dry, to obviate the continual trouble arising through evaporation of the exciting fluids and the consequent formation of crystals on the elements and porous cells. The connecting wires should be brought up into the consulting room and attached to a current selector, so that any required number of cells may be used. When newly charged, the resistance of the water in the outer cell is so great that only a feeble current can be obtained; after the lapse of twenty-four hours, however, the battery can be used, although the maximum strength is not attained for two or three days. When favourably placed, the battery will require cleaning and recharging about three times a year. On two separate occasions my own consulting-room Daniell-Muirhead battery, though in daily use, remained without recharging for five months; but during the last month the internal resistance largely increased, and considerably diminished the force of the current.

The battery of Stöhrer and that of Mayer and Meltzer are each formed of single-cell zinc-carbon elements charged with dilute sulphuric acid, the zincs being amalgamated with mercury to prevent local action, and a little sulphate of mercury is placed in each cell to render the amalgamation more permanent. Each form of battery is tolerably constant when used with a high external resistance, which is always the case in medical applications. With a like amount of use, they require recharging much more frequently than the Daniell-Muirhead, as the sulphate of zinc, which is formed when the circuit is closed, rapidly increases the internal resistance. They may be "refreshed" occasionally without recharging by the addition of more sulphuric acid; but, as the resistance goes on increasing, there is a limit to this method of stimulation. In both batteries, when not in use, the elements can be lifted out of the exciting fluid. In Mayer and Meltzer's, further provision is made so as to enable the operator to select the elements quadruply, without being compelled invariably to commence with No. 1. This is of great importance in economising the working power of the battery, as the combined electro-motive force of a number of cells arranged in series (as all medical batteries are) is equal to the electro motive force of the *weakest* of the series multiplied by the number used; therefore, in a Stöhrer's battery of fifty cells, where the first ten are used much more frequently than the remaining forty, and are proportionally reduced in power, the current produced by thirty cells is only equal to thirty times the weakest of the first ten. Now in Mayer and Meltzer's battery, when, from frequent use, the first cells become enfeebled, we can omit them and select the cells which are in more perfect condition.

The Foveaux battery is formed of zinc and platinised silver elements, excited with dilute sulphuric acid. The elements are very small, exposing a surface only of two and a half square inches, in order to increase the internal resistance, and so moderate the local action on the skin. There is a disadvantage, however, in having such very small elements, as they polarise rapidly when the battery is in use, and consequently the current continually varies in strength. This battery is furnished with an ingenious arrangement by which the act of opening or shutting the lid of the containing-box places the elements in and out of the exciting fluid. A modified form of this battery has been recently brought out by Mr. Mathews, in which the operator can begin with any cell he pleases.

The last two batteries in the table have each a metallic peroxide for the negative element, that of the Leclanché being peroxide of manganese, that of the Clamond et Gaiffe peroxide of iron; the positive element in each is zinc, and the exciting fluid a solution of chloride of ammonia. This type of cell remains active a surprising time if used only intermittently, owing to the fact that when the battery is not in use all chemical action ceases, and there is consequently no waste of electro-motive force, an advantage which renders the peroxide cells peculiarly adapted to the wants of medical men, for, once charged, the battery requires no further attention. There are no plates to be lifted out of the exciting fluid, nor is there any need of amalgamating or recharging; the only precaution required after using the battery is to detach its conducting cords in order to prevent accidental closure of the circuit, as this would rapidly and permanently exhaust the strength. With good usage, if the battery when not in use is kept in a cool place with the lid shut, it will remain active for one, two, or even three years. When eventually the cells become exhausted they can be recharged by the maker only; and although the cost of recharging is considerably more than in the older forms of battery, still it cannot be regarded as excessive if we consider the length of time the peroxide cells will work without requiring any manipulation whatever, and that the older forms of batteries required not only frequent recharging, but occasional renewal of the zincs. It will be noticed on reference to the table that the resistance of the Clamond et Gaiffe cell greatly exceeds that of the Leclanché. In Gaiffe's original cell the resistance was very much less, but as it was found to give consider-

able pain, M. Gaiffe largely increased the resistance, with the desired result; but since the resistance increases with use, it is not advisable to begin with an artificially augmented resistance, as after a time it becomes excessive, and impairs the power of the battery.

Thirty to fifty cells are required to form an efficient battery. By thoroughly moistening the skin with an acid or saline solution before applying the electrodes, most requirements will be met by thirty cells. Every battery should be fitted with a contrivance for bringing readily into circuit the required number of cells, and this selector should be arranged so as to avoid a break during a change in the number of cells in circuit, otherwise the patient will experience a disagreeable shock. This unpleasant hitch is usually obviated by making the selector take up the new cell before it leaves the cell with which it is *en rapport*. A commutator, or current reverser, should also form part of the battery, as, independently of its use for changing the direction of the current, it is convenient to have a means of opening and closing the circuit without interfering with the electrodes. In order to estimate the amount of electricity administered a galvanometer is absolutely necessary, otherwise the operator can but guess the dose he is giving. The dosage of medicine by tablespoonfuls of indefinite capacity is much less inaccurate than the usual mode of estimating the amount of electricity administered by the number of cells used, for not only does one kind of cell differ from another in amount of current, but the same battery varies considerably according to whether or not it has been recently charged—a remark which holds with great force in regard to single-cell batteries, which rapidly lose strength by use. Different individuals also manifest a considerable difference in the resistance of the skin, and even the same individual has a varying resistance, depending to a certain extent upon the activity or otherwise of the sudoriparous glands. On two separate occasions with the same patient I measured the resistance whilst the current was passing along the flexor carpi radialis, and on the first it equalled 4450 ohms, and on the second 1200 ohms, this marked difference being caused by the patient having, at my request, bathed her arm in hot water, and rubbed it well with a bath-glove immediately previous to the second experiment. When the cutaneous resistance is high, a larger number of cells are required to produce the same effect as a less number will accomplish with a lower resistance.

The measuring apparatus should consist of a tangent galvanometer and a resistance-coil of 150 or 200 ohms; the electro-motive force will then be proportional to the tangent of the angle of deflection. The resistance-coil is only included in the circuit when we wish to measure the power of the battery, which is done by bringing into contact with each other the metallic terminals of the conducting cords, and noting the deflection of the needle. When the galvanometer is used for gauging the dose administered to a patient, the resistance-coil is left out of circuit, as it would needlessly augment the resistance. Ordinarily it is necessary merely to note the number of degrees indicated by the deflected needle, and when on another occasion the same amount of current is desired, a similar deflection must be produced irrespective of the number of cells employed. The so-called galvanometer usually supplied with medical batteries merely indicates the presence or absence of an electric current when the circuit is closed, for inasmuch as the needle is deflected by one cell as far as by fifty, the instrument is not a galvanometer, but merely a galvanoscope. Nevertheless a simple indicator of this kind is useful to test the connexions of the battery and electrodes, for if contact of the electrodes produces a deflection of the needle, the circuit is complete. Indeed, this precaution should always be taken before applying the electrodes, as in many cases the patient cannot feel the application, and without some such testing expedient we may peradventure employ the "negative current" in a ludicrously different sense to that which we intend.

To epitomise: the best battery for consulting-room or hospital use is the Daniell Muirhead; for consulting-room and out-door work combined, I consider the peroxide batteries by far the best, as, in addition to their intrinsic merit, they are convenient to carry, and are much less likely to allow the exciting fluid to escape during transit than the ordinary kind of battery.

Manchester.

THE THERMO-CAUTERY IN OBSTETRIC SURGERY.

BY S. W. IORWERTH JOSEPH,
HOUSE-SURGEON, THE HOSPITAL FOR WOMEN.

DR. PAQUELIN'S Cautery (patented), made by Messrs. Collin and Co., of Paris, was figured and briefly described in THE LANCET of January 20th, 1877; and some remarks respecting its usefulness in the Royal Infirmary, Edinburgh, were published in the succeeding number.

The frequent use of this cautery at the Hospital for Women permits me to furnish some additional remarks; and, with the permission of the medical officers here, I take the opportunity of bringing before the notice of the profession certain appliances which have been made at their suggestion by Messrs. Mayer and Meltzer, of Great Portland-street, rendering it applicable in a far larger number of cases, and consequently a much more valuable instrument in the hands of the operator. The simplicity, compactness, portability, and efficiency of the cautery are sufficient reasons for recommending it, and the esteem in which it is here held is best conceived when I say that the *fer-rouge* has been altogether discarded, and the galvano-cautery virtually so, being only employed in a few instances.

The class of cases it has been most used for here are necessarily uterine; such as growths of various kinds in the cervical canal; induration, hypertrophy, and carcinomatous growths of the cervix uteri, vulva, and other parts.

As stated in the report above referred to, "some experience is required in regulating the proper heating of the knife, and the amount of pressure with which it should be used, but when this experience is gained the working of the instrument is perfect." Mr. Annandale's observations respecting the heat desired for dividing the several tissues of the body are strictly confirmed by every-day experience in this hospital. When heated to vivid incandescence, large masses of fungating and carcinomatous tissues may be rapidly destroyed; when, on the other hand, it is important to prevent hæmorrhage (and a bloodless operation may often be performed), it is desirable that only a red heat should be employed. The regulation of the temperature is easily affected, depending simply upon the manipulation by the hand of an ordinary spray-bellows; by means of which a current of benzoline vapour is made to pass over a heated surface of platinum.

I have myself found the instrument most efficient in arresting hæmorrhage. Let me cite two instances. In the first, free hæmorrhage was proceeding per vaginam; the case was one of induration of the cervix uteri, to which caustic potash had been applied by Dr. Heywood Smith on several occasions—the last time four days prior to the bleeding, and the process of ulceration which had led to the separation of a large slough had at the same time laid open an artery on each lip of the cervix, about an inch up the canal. To see the bleeding points it was necessary to separate the lips of the cervix with ovum-forceps, and between the separated blades is inserted the platinum point of the cautery at a dull-red heat. The hæmorrhage, which in a short space of time had exceeded two pints, was instantly arrested, which might have been otherwise, judging by the size of the pumping-vessels and their position, had not the cautery been at hand. The second case was one of secondary hæmorrhage from the left labium majus, from which an epitheliomatous mass had been removed on the previous day.

While acting so readily and so efficiently as a cautery, the instrument is, in great measure, free from the serious objection of radiating heat, on which account it is peculiarly useful in operative procedures in the mouth, vagina, and rectum. Another advantage in it is the platinum head is not so quickly cooled as most other forms of cautery, it being possible to maintain the platinum hot, when in contact with the tissues, by pumping the benzoline vapour through the handle shaft by constantly manipulating the spray-bellows. Occasionally, however, I have found the platinum head become rapidly cooled, but this I attribute

more often to the employment of an inferior quality of benzoline than to any deficiency in the instrument.

The character of the eschar formed varies in appearance, according to the heat at which the cautery is used, and the period of separation is also modified by the nature of the tissue to which it is applied. When employed at a white heat the destruction of tissue is extremely rapid, the eschar formed is generally black, and at this temperature a small zone of surrounding inflammatory redness often occurs; but, as proving the radiating heat to be inconsiderable, I may say that when applied to the cervix uteri a glass speculum is habitually used. As a result of employing a red heat, the cervical tissues assume a white wet leathery sort of appearance; but in both instances the slough which subsequently forms is healthy, and has never as yet given rise to septic absorption.

The separation of the slough is, as a rule, somewhat more rapid, I am inclined to think, than after the use of the galvano-cautery; and occasionally slight secondary hæmorrhage occurs, which, however, may always be arrested by a gentle reapplication; indeed, it is seldom necessary to resort to such a heroic measure, a dry plug frequently sufficing. This hæmorrhage is possibly due to the short time the slough takes to form being insufficient for the complete formation of the capillary circulation along the border line of separation; as, however, I have noticed this more generally after operations on the uterus, the nature of the tissue operated upon is doubtless one factor, if not the prime factor, in causing it.

The accompanying diagrams illustrate the additional appliances made for Mr. Reeves and Dr. Heywood Smith by Messrs. Mayer and Meltzer. Each piece may be joined to the common shaft furnished in Collin's instrument.

Fig. 1 represents a stilette found to be extremely useful for touching ulcers and fissures of the bowel, puncturing internal and external piles with the most satisfactory results, some of the cases so treated leaving the hospital within seven days of the operation; but as Mr. Reeves purposes shortly writing fully on this subject I must refrain from speaking more in detail. It is likewise very useful in ulcerated and granular conditions of the female urethra, also in nævoid growths and in cases of undue vascularity and vascular growths of the meatus urinarius. Fig. 2 is a knife, very useful for cutting purposes, as in the separation of a pedicle; but especially so in dissecting away growths which have an intimate relation with bone. Fig. 3 illustrates a sound which Dr. Heywood Smith has found very efficient in destroying points of great sensibility in the cervical canal, and for the local treatment of obstinate cases of endo-cervicitis. Fig. 4 represents a thick, round probe, useful for arresting hæmorrhage, and in other cases where it is desirable the application of the cautery should be strictly limited to the point first touched. Fig. 5 depicts a form of écraseur and guillotine combined, and though its efficiency is not yet confirmed, it will doubtless prove of great value in many instances, at least it commends itself on examination for the removal of large polypoid growths, &c. The heated platinum plate is propelled forward and at the same time has a lateral movement, by means of a screw apparatus, so that without moving the handle the surface over which the cauterising plate is made to pass is very considerable.

I am permitted to add that Dr. Heywood Smith has applied the thermo-cautery to as many as eight or ten out-patients on one day, so generally useful and so free from injurious sequelæ has it been found. A large number of these cases have been "granular erosion" of the cervix uteri, which, after resisting all other treatment, have readily healed after a few applications of the platinum point.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

CANCER OF THE KIDNEY OF FOURTEEN YEARS' DURATION; DEATH FROM PHTHISIS.

(Under the care of Dr. ANDREW.)

For the following notes we are indebted to Mr. R. Wharry, M.B.

In this remarkable case there is sufficient evidence for believing that the malignant growth in the right kidney had existed for fourteen years at least (probably nearly two years longer). Its origin was distinctly traced to an injury, its progress was gradual, and, with the exception of the occasional attacks of hæmaturia, gave rise to no inconvenience except that occasioned by its size. The growth was not the immediate cause of death, and, but for the occurrence of phthisis, might not have destroyed life for a considerable time. In structure it apparently consisted of both scirrhous and encephaloid cancer, the older parts being scirrhus, the more recent encephaloid. There were no secondary deposits in any other organ. No cancer-cells were at any time detected in the urine. A mulberry calculus was present in the affected kidney.

The interest attaching to the case does not rest solely with the abdominal tumour. The patient died from the effect of fog upon lungs in an advanced condition of phthisis, although, from the coexistence of emphysema, it was quite impossible to ascertain precisely the state of these organs from a physical examination. The existence of phthisis was diagnosed during life, but not from the information derived from physical examination of the chest. The tuberculous ulceration of the intestines was in no way indicated during life, the only symptom referable to the gastro-intestinal tract being a feeling of heaviness in the epigastrium after dinner.

It is an open question whether the shivering fit which occurred was the effect of a malarial taint, or the result of some irritation of the ureter by the calculus, since the patient had been in India, but had not suffered from ague there.

J. B——, aged thirty-six, a french-polisher, formerly a soldier, was admitted Oct. 5th, 1876. He was emaciated; his face flushed; eyes sunken, pupils equal; tongue clean; pulse 90, of fair volume, regular, and soft; temperature 99·3°; respiration 28. The thorax was barrel-shaped; shoulders high; angle of Ludovicus prominent; costal angle enlarged. Expansion was greater on the right side than on

the left; vocal vibration increased on the right side; general hyper-resonance on percussion, except at the right apex, where it was slightly impaired. Expiration was prolonged at both apices. The superficial veins of the abdominal walls were slightly enlarged. Occupying the umbilical region was a large irregularly quadrate tumour, elastic, lobed, and in general outline resembling the liver; dull on percussion, it extended towards the right flank. There was also fulness in the right lumbar region, where a tumour could be indistinctly made out. The hepatic dulness was very much diminished, and the splenic dulness not increased. The tumour measured fifteen inches transversely, and seven and a half vertically in the median line. No fluctuation between the lobes could be detected, but the lobes were so highly elastic as to closely simulate fluctuation. The tumour was freely movable, not adherent to the abdominal walls, descended slightly with inspiration, and had no intestine in front of it. The tumour never was painful, and was tender only in one spot, towards the upper part of the right flank. The patient was troubled with cough, and expectorated daily large quantities of greenish viscid muco-pus. His appetite was good, and he had never suffered from sickness. Bowels open once every two or three days; micturition natural. Urine neutral, sp. gr. 1024, and contained no albumen. The man slept badly, owing to cough.

He first noticed the abdominal tumour fourteen years ago, and attributed it to an injury he had received two years previously in his right loin. (He was struck by his sword hilt in falling from a horse.) From that time he occasionally had attacks of hæmaturia, which lasted for several days and then passed off. The tumour was only small at first, but steadily grew larger; it did not cause any discomfort, except a sense of "dragging" from the right loin. Twice he had had gonorrhœa, but never syphilis. His family history was good.

Ordered full diet, with a pint of porter. To take four grains of carbonate of ammonia, fifteen drops of tincture of squills, in an ounce of infusion of cascarilla, three times a day; and ten grains of ipecacuanha and squills pill at night.

Oct. 6th. — Temperature 102°; pulse 168; respiration 30. Some dry crepitation audible at the base of the right lung posteriorly.

7th.—At 8 A.M. he had a shivering fit, which lasted about half an hour, followed by a sense of heat, with profuse sweating. — 11 A.M.: Temperature 103·6°; pulse 120; respiration 36. He complains of feeling giddy. The right pupil is contracted; tongue clean and dry; bowels open slightly. Urine neutral, specific gravity 1027, contains no albumen. The diet to be changed to fish, with milk and six ounces of wine.

9th. — Temperature 100·5°; pulse 106; respiration 30. Pupils equal. No return of the rigors.

13th.—His general condition has not improved. He has symptoms of hectic; the cough has grown more troublesome; expectoration very copious; scanty crepitation is heard at the right apex; the physical signs are otherwise the same. Temperature 102·4°; pulse 118; respiration 34. His bowels have been open once daily during the past week, the dejections being well formed. Ordered one drachm of syrup of chloral, twenty drops of the solution of acetate of morphia, with an ounce of camphor water, at bedtime.

14th.—Temperature 102·7°; pulse 120. Has passed a better night than usual. The urine is cloudy, dark brown, and grumous; specific gravity 1034; gives the blood test with guaiacum and ozonic ether; contains a large quantity of albumen; examined microscopically, it is found to contain numerous blood-discs, granular matter, and epithelial cells.

21st.—Temperature 101·4°; pulse 114; respiration 34. The cough is more troublesome. There is a considerable increase in the crepitation heard in the right side of the chest. The urine, though still containing blood, has nearly assumed its natural colour; he passes two pints and a half in twenty-four hours. His feet are œdematous.

24th.—The patient died suddenly early this morning, during a dense fog.

Post-mortem examination.—Body emaciated. An elastic tumour filled the umbilical region. The liver was in its natural position, and rather small. The transverse colon was displaced along the lower border of the tumour. The tumour filled the space between the liver and cæcum, and extended far back into the loins. Lungs: There were no adhesions in the left pleura, but there were some at the right apex. There was no pleuritic effusion. The lobes of the right lung were united by old adhesions; the lower lobe was collapsed posteriorly up to its apex; anteriorly it was emphysematous; the apex of the lower lobe was solid; numerous solid masses were scattered through the substance of the upper lobe; the apex contained an irregular cavity as large as a walnut; the rest of the upper lobe was infiltrated with yellow tubercle; the apex of the lower lobe was solid and breaking down into numerous cavities, surrounded by grey pneumonia. The left lung was full of solid masses, the apex deeply scarred, and anteriorly there were bladders of emphysema; the apex of the lower lobe contained two large cavities. The bronchial tubes contained puriform secretion. The bronchial glands were enlarged, highly pigmented and tubercular. The heart was normal, the right side being distended. The ureter on the right side was dissected out, and found to pass behind the tumour; a large vein about the size of a man's finger passed out of the tumour obliquely upward to the vena cava. On separating the liver from the upper lobe of the tumour a mass resembling the upper part of the kidney was discovered. The lower part of the kidney was closely connected with the tumour. There were numerous large veins connected with the new growth. The dilated ureter passed out of the pelvis of the kidney. Upon opening the pelvis of the right kidney it was found to contain some coffee-coloured fluid, with some lighter coloured flakes suspended in it. The pelvis was dilated and a small mulberry calculus was firmly adherent to the inner part of its wall. The tumour seemed to have originated in the medulla of the kidney, and to have grown directly out of it, pushing away before it that part of the kidney substance that was found between the new growth and the liver, and not infiltrating the organ generally. It consisted of a tree-like mass of extremely dense fibroid tissue, from which grew out in all directions spherical masses of very soft and highly elastic tissue, giving it the lobed appearance. Near the root of the dense tissue and in its substance was a rounded mass of cheesy and calcareous matter. In no place was the elastic tissue broken down. The left kidney was enlarged, but natural in texture. There were several patches of tubercular ulceration in the lower part of the small intestine.

KING'S COLLEGE HOSPITAL.

SLOUGHING OF THE PENIS AND SCROTUM; SECONDARY ABSCESS IN THE ANTERIOR MEDIASTINUM; PERFORATION OF THE STERNUM; RECOVERY.

(Under the care of Mr. HENRY SMITH.)

FOR the notes of this interesting case we are indebted to Mr. Duncan, late surgical registrar.

George B——, aged twenty-five, was admitted Oct. 23rd, 1876, for sloughing of penis and scrotum, &c. He had always enjoyed good health until July 9th last, when he contracted a gonorrhœa. The latter was cured in a few days, but was accompanied by a sympathetic bubo. Eight weeks afterwards he discovered the presence of a chancre under the foreskin, involving the frænum. This was complicated by phimosis. He attended as out-patient, and on Oct. 14th the foreskin was slit up. On Oct. 17th a small black spot appeared on the under surface of the penis, about half an inch posterior to the base of the glans. This spread rapidly, so that on Oct. 23rd he was taken into the hospital. Previously to this the patient had been passing, for some indefinite period, a small dribbling stream of urine.

On admission, a sore involving the frænum was found at the base of the glans, the nature of which was not exactly definable. The tissues on the under surface of the penis and the anterior surface of the scrotum were in a state of sloughing phagedæna. An interval of sound skin existed between the sore and the confines of the phagedæna. A stricture also existed near the orifice of the urethra. Temperature on evening of admission 100·4°; pulse 80. The stricture was subjected to internal urethrotomy, and thirty grains of the tartrate of iron ordered three times daily. The sloughing surface was dressed with red lotion.

Oct. 26th.—The sloughs have separated. The ulcerating surface looks healthy. A No. 12 catheter easily passed.

27th.—The patient had a rigor, followed by heat and profuse perspiration.

28th.—A second rigor, lasting twenty minutes, followed by heat and sweating.

30th.—Both yesterday and to-day has had some rather profuse sweats, but no more rigors; complains to-day of cough and severe pain in the left side of the chest anteriorly; the pain is not limited to any particular spot. Morning temperature on 29th inst., 104·4°; evening, 101·2°. Morning temperature on 30th inst., 103°; evening, 103 8°.

Nov. 5th.—Since the last note he has had constant pain in the chest, which has now become more or less located in the mid-sternal region. The temperature has fluctuated, there being an interval generally of 3° between the morning and evening range. The morning temperature for the last three days has, however, been nearly normal. Lung- and heart-sounds normal.

7th.—Since the last note the temperature has remained steadily high—102° to 103°; the pain in the chest is less; there is a slight bulging apparent on the right side of the mid-sternal region; the patient has occasionally free perspiration.

9th.—An abscess is now apparent over the fourth intercostal space, close to the right side of the sternum. Being opened, it discharged a quantity of thick, dark-coloured pus. After the abscess was opened the pain in the chest was greatly relieved. Poultices applied. The ulcerating surfaces on the penis and scrotum have remained healthy-looking, and show signs of commencing granulation.

10th.—This morning the abscess is noticed to pulsate; the pulsation is not distensile, but simply consists of a heaving up and down. There is great superficial pain all over mid-sternal region, but no swelling of sternum itself; on inspiration, air can be heard to be sucked into the abscess. The temperature has been much less fluctuating since the abscess was opened; the pain in the parts forbids any prolonged examination.

17th.—For the last four days the patient has had severe pain on coughing, and has complained of an "internal crackling sensation." The abscess pulsates more forcibly—the pus is very frothy. The heart's apex beats in the nipple line, but the cardiac action is regular, and averages about 100 beats in the minute. The pain can now be distinctly located to the middle of the sternum near the level of the fourth costal cartilage. On palpating the part crepitus can be elicited, and the upper half of the sternum is found to have undergone a solution of continuity from the lower at this level. At the junction of the fourth costal cartilage with the sternum there is also distinct crepitus. There is no swelling of the outline of the sternum. The temperature chart is very irregular, but the general range does not exceed 102°.

19th.—A sharp attack of epistaxis occurred to-day.

21st.—The local condition of the abscess has been much the same since the 17th inst., except that the pus has become rather of a sanious character. To-day Mr. Smith passed a bistoury carefully into the sac of the abscess, behind the anterior wall of the chest, and enlarged the opening. A quantity of dark fetid pus spouted out. On a probe being introduced bare bone could be felt at the right edge of the sternum at the level of the fourth intercostal space.

Dec. 1st.—Since the freer opening was made the patient has improved greatly. The discharge has come more freely away from the abscess, but has at the same time diminished in quantity, and is of a healthier description. The temperature has become more regular, and now ranges from 98° to 99°. The pain in the parts is much less, and crepitus is less distinct; granulation is freely proceeding over the scrotum and penis. The sore on the *frænum* has gradually ceased to secrete pus, and is now nearly healed; the base is rather hard.

9th.—Discharge much lessened from the abscess. Pain very slight. No crepitus. The upper part of the sternum can no longer be moved against the lower. An eruption of circular, infiltrated, copper-coloured spots has appeared on forehead, nose, and cheeks.

21st.—There is now only a very small purulent discharge from the abscess. No pain is felt over the sternum or elsewhere. The heart's apex beats in its normal position. The ulcerating surfaces on the penis and scrotum have healed. The copper-coloured eruption remains. The patient is to be discharged; to take mercury; and to report himself as an out-patient.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

CASE OF ACUTE RHEUMATISM TREATED WITH SALICYLATE OF SODA; RECOVERY WITH A DAMAGED JOINT.

(Under the care of Dr. BRADBURY.)

M. A. J——, aged nineteen, single, servant, living at Grantchester, near Cambridge, was admitted September 29th, 1876, with well-marked symptoms of rheumatic fever. She had always been somewhat delicate, and was a steady girl. A fortnight ago had an attack of diarrhœa, from which she perfectly recovered. On September 25th she felt sick and vomited some bilious matter, and felt unable to get up. The following day she had a rigor and felt very feverish, and her left wrist began to swell and felt stiff. On the 27th the back also felt stiff, and her throat sore. Her bowels were relieved by medicine on that day. On admission her left wrist was red and swollen, and the right knee stiff, but not much swollen. There was the characteristic rheumatic odour about the sweat. Temperature 100·4°; pulse 100. Urine non-albuminous. Tongue much coated. Heart and lung-sounds normal. At 6 P.M. she was ordered twenty-five grains of salicylate of soda in an ounce of water every two hours, and placed upon a diet of beef-tea and milk. She was also bedded in flannel, and cotton-wool applied to affected joints.

Sept. 30th.—Perspired freely during the night. Did not sleep, and was rather light-headed. Complained this morning of feeling deaf, and of tinnitus aurium. Left wrist not quite so painful, although very red and swollen. Right knee had ceased to be stiff. Morning temperature 100·6°; pulse 124. Evening temperature 99·6°; pulse 112.

Oct. 1st.—Some delirium last night, which continued through part of to-day. Morning temperature, 100·4°; pulse 102. Evening temperature, 100 8°. To continue mixture.

2nd.—Not so delirious. Little pain complained of, and the swelling over the left metacarpal bones has decreased. In the course of the day the throat became more painful, and the breathing noisy. To continue mixture. Morning temperature, 100 4°; pulse 108. Evening temperature, 101°; pulse 124.

3rd.—Again delirious last night. Only complaint made referred to throat, which felt sore and dry. Bowels acted yesterday after some senna. Morning temperature, 100°; pulse not recorded. Evening temperature, 100·6°; pulse 102.

4th.—Rather wandering last night. Medicine stopped at 11.30 P.M. To-day was flushed; breathing noisy, as if from enlarged tonsils; tongue very dry and brown along middle of dorsum; left arm more or less stiff; left wrist swollen and pale, not very tender. She complained of great thirst. Morning temperature, 99·2°; pulse 112. Evening temperature, 99·6°. On inspection the mucous membrane of the fauces was rather dry and coated; there was no noticeable enlargement of the tonsils. Ordered twenty grains of bicarbonate of potash in an ounce and a half of water every four hours, and, as the bowels were confined, ten grains of colocynth and henbane pill immediately.

5th.—Was not delirious yesterday nor during the night; slept a great part of yesterday, the greatest part of the night, and several hours this morning; appeared when awake more intelligent and mentally active; no complaint of pain, but left arm remained stiff; breathing remained very deep and somewhat snoring; cardiac sounds normal.

From this time the patient made a gradual but very slow recovery. The wrist was at times very painful and swollen, and it was not until Oct. 19th that the temperature became normal. The throat soon became better after the salicylate of soda was discontinued. On Oct. 20th she was ordered a quinine and alkaline mixture, which seemed to benefit her. The wrist, however, still continued swollen and painful, and blistering fluid was applied near the joint, but without giving much relief. On Nov. 6th an iodide of potassium and bark mixture was substituted for the quinine, with the result of reducing somewhat the swelling. The arm was also placed upon a splint, with slight amelioration. But notwithstanding the remedies resorted to, including fric-

tions with stimulating liniments, tincture of perchloride of iron, cod-liver oil, &c., the left wrist is still stiff, and contains a little fluid. There is no reason to suspect the rheumatism to have been gonorrhœal. This is the only case of acute rheumatism which has been under Dr. Bradbury's care in which the patient has recovered with a stiff joint, and the only one in which he has prescribed a preparation of salicylic acid or salicin.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on the 6th inst., the President, Dr. Murchison, occupying the chair. The evening was again devoted to the subject of Visceral Syphilis, which is not yet exhausted. The arterial changes were described by Dr. Buzzard and by Dr. Davidson of Liverpool; Mr. Hutchinson spoke at length chiefly upon the clinical aspect of visceral syphilis, especially dwelling upon choroidal changes, and making many valuable suggestions for future work. Lastly, Dr. Goodhart introduced the subject of syphilitic phthisis, which will be further discussed at the next meeting.

In the course of the evening Mr. J. H. Casson was elected a member of the Society.

Dr. BUZZARD exhibited some microscopical preparations and drawings of Syphilitic Disease of the Cerebral Vessels, obtained from a gentleman forty-five years of age, whom Dr. Buzzard attended last August. The patient was then insensible and perfectly paralysed. He had contracted syphilis twenty years before, and it was noticed that the secondary manifestations were very slight. He remained in good health up to three years ago, when he began to suffer from diplopia, and a year later from strabismus; iodide of potassium was given, and the ocular disturbances disappeared, to occur again, and again be removed by the drug. Two months before death the patient complained of loss of power in his limbs, which became completely paralysed a fortnight before death, when vomiting and severe headache supervened, passing into coma. Post-mortem: The calvaria was normal, and the dura mater unchanged. The arachnoid membrane was thick and opaque. The basilar artery was irregularly thickened, and nodulated, and was plugged as far as its division into the posterior cerebrals. There was softening of the pons Varolii and superficial layers of the crura cerebri. A few nodules occurred on the right middle cerebral artery, and the aortic lining membrane was roughened above the semilunar valves. Mr. Herbert Sankey had made a careful microscopical examination of the basilar artery. His preparations showed the adventitia to be replaced by a growth of small, nucleated, fusiform, and spherical cells about the 1-1300th of an inch in diameter, the nuclei being 1-4000th of an inch. The growth was pervaded by large thin-walled vessels. In the muscular coat the usual nuclei were not visible, but only some granular débris. The elastic layer was unaltered, but the endothelium was replaced by a growth of fibrous tissue and spindle cells, abundantly traversed by thin-walled capillaries. The lumen of the vessel was filled by thrombi of different dates. The spleen presented a peculiar circumscribed thickening of its capsule an inch in depth, in which new growth seemed to have taken place between the layers of the capsule. In reply to the President, Dr. Buzzard said that the arterial changes described confirmed, in the main, those described by Dr. Greenfield.

A communication from Dr. ALEX. DAVIDSON, of Liverpool, was read by the Hon. Secretary (Dr. Douglas Powell). It accompanied some microscopical preparations of a primary chancre and a cerebral artery from different subjects. Dr. Davidson showed the specimens in order to bring out the resemblance between the histology of the primary and tertiary syphilitic formations, and therefore so far evidence against the latter being considered as mere "sequelæ." The subject of the cerebral affection was a seaman thirty-four years of age, who came under Dr. Davidson's care seven years after suffering from primary symptoms. He had much headache, unrelieved by large doses of iodide of potassium, and three weeks after admission he was attacked with partial left hemiplegia, and a fortnight later with palsy of the right third nerve. He died a week afterwards, and a small hæmorrhage was found in the right crus cerebri. The arteries at the base of the brain were thickened, showing the following changes:—(1) Infiltration of the adventitia, with a small round-celled growth, disposed unequally around the vessel; and (2) an organised fibro-cellular structure, itself provided with vessels, lining the interior of the artery. This, Dr. Davidson believed, was really an organised thrombus which had formed along the wall of the vessel, as a result of the narrowing of the calibre of the latter by the growth in the outer coat; and he compared it to the thrombus found after ligature of an artery, and remarked that the specimen was nearly identical with that figured in Billroth's Surgical Pathology, of a thrombus ten days after deligation. He thus dissented from Heubner's view as to the existence of an endarteritis, the intima remaining intact.

The PRESIDENT, remarking that this communication opened a new view of the arterial changes, asked Dr. Greenfield if he had any observations to make in reply.

Dr. GREENFIELD said that the specimens of disease of the arteries which had been shown by Drs. Barlow, Buzzard, Gowers, and himself all seemed to present somewhat similar characters, though the stages of the disease were different in the several cases, and there was some diversity in the interpretation of the facts observed. There seemed to be little question as to the changes in the outer coat, these being very similar in all. The middle coat was but little involved in any of the specimens he had examined. The changes in the inner coat were a subject of conflict of opinion, as to their exact nature, the history of their growth, and their relation to other arterial diseases. He had already described minutely the microscopic characters of the growth in the inner coat. The specific character of these changes, as described by Heubner, had been denied by Friedlander, who stated that in artificially-induced pneumonia in rabbits precisely similar changes were to be observed in the smaller arteries of the lung. This, however, even admitting the precise identity of the histological changes, did not disprove the view that in the human subject such changes occurred (so far as was at present known) only in syphilis, at any rate to the same degree. The term "specific" must be used in a limited sense, the histological elements, and to a certain extent their arrangement, being no doubt similar to those in other new growths. The three views as to the mode of the production of these changes seemed to be—(1) that they resembled atheroma; (2) that they were due to organisation of a peripheral thrombus; and (3) that they arose by a peculiar growth from the endothelium and the interlaminar cells of the intima, and produced a vascular structure corresponding with other syphilitic new growths. The view of atheroma was unsupported by any observations of which he was aware, and was entirely contradicted by the experience of some very able histologists who had compared the specimens, and who had carefully studied atheroma. He had himself carefully studied and compared the changes with those occurring in the various commoner forms of disease in the inner coat, and found nothing at all similar in their character. The second view, that of peripheral thrombosis, advocated by Dr. Davidson, seemed to him to be contradicted by the only specimen exhibited by Dr. Davidson himself, on which the theory was founded. No doubt changes of a somewhat similar nature occurred in the endothelium as a *result* of thrombosis, but in that case they were set up by the presence and irritation of the thrombus, and formed a step in the organisation. The difference, however, lay in the fact that in syphilitic endarteritis these processes occurred into the channel of the vessel, and *led* to the formation of the thrombus instead of being secondary to it. This seemed to be beautifully shown by the specimen exhibited by Dr. Davidson, in which moreover it appeared that the process occurred at two different periods. The specimen constituted an intermediate one between the two stages

shown by himself, and formed a valuable link in the history of the morbid process. It seemed very desirable that the investigation should be continued, in order that, by the comparison of a large number of cases in various stages of the disease, a more exact idea might be gained of the nature of the process, which appeared to play so important a part in the clinical history of syphilis—by the production of brain degeneration.

Dr. GOWERS believed that Heubner disclaimed any idea of there being any specific character in the structure of the growth itself. As proof of this the description given by Heubner of syphilitic arteritis might be compared with that given by Wilks and Moxon of "semi-cartilaginous thickening" of arteries, when it would be found that the descriptions corresponded even to the minutest details; but the latter authors believe that the condition they describe is in no way connected with syphilis. It would seem as if the influence of the syphilitic dyscrasia was shown rather in the degree to which the change was carried than in the kind of change, and he (Dr. Gowers) thought that the occurrence of nodular thickenings of the outer wall was of more significance than the endarterial changes.

Dr. CRISP said it would be well if some information were given as to the treatment of the patients, for it used to be thought that mercury was apt to produce the arterial lesions. It might be that a number of the changes described were independent of syphilis, and really due to the drug.

Mr. HUTCHINSON said: I really feel, Mr. President, after the extremely interesting contributions to our knowledge of the minute pathology of visceral syphilis which these meetings have elicited from Dr. Greenfield, Dr. Gowers, Dr. Barlow, and others, some diffidence in bringing forward my cases. I have had but little opportunity of pursuing pathological anatomy, and what I shall have to say will chiefly concern drawings made from living patients and other clinical observations unsupported by post-mortems. A great many cases of visceral syphilis have in a more or less fragmentary way come under my observation; but, although I have, whenever I could, followed them up, yet I have had surprisingly few opportunities for making autopsies. Most of the patients have, indeed, persisted in getting well. In point of fact, the only morbid specimen that I have to show was obtained in consequence solely of a mistake of the diagnosis. I am very sorry to say that during the life of the lady whose brain is before us, I did not suspect that she was the subject of syphilis. If I had, I do not in the least believe that I should have been able to produce the specimen this evening. The particulars of the case are briefly these: I saw the lady only twice, with a three years' interval, and the last time three months before her death. Her family medical attendant had her under observation the whole time, and it was through his energy that we procured the post-mortem. He knew of no reason to suspect her of being syphilitic, and he had attended her two children who were quite healthy. When Mrs. A—— was first brought to me in 1867 she complained of a most severe headache and of dimness of sight. She alleged that her mother and sister had suffered from a similar kind of headache. She was irritable almost to the extent of insanity, and light being annoying to her she would scarcely let me look at her eyes. I suspected tumour on the brain. Three years later I saw her at her own house. She had in the interval been better and worse, but her sufferings from headache had often been most intense. Her friends blamed her and suspected her of exaggeration, asserting that she sometimes seemed to get well very suddenly, and would now seem almost blind, and in a few hours be able to read well. The diagnosis was still tumour, and although we gave some iodide it was not pushed with that vigour which a correct diagnosis would have produced. At the post-mortem, three months after the second consultation, the skull was found very thick and hard, its dura mater adherent in patches, and in the pia mater, indenting the convolutions, which also were implicated, were a number of dense, pinkish-white lumps. These were very evidently syphilitic gummata. We now made further inquiries, and it came out that this lady, although now well married, had been kept by her husband for some years before he married her, and had, to his knowledge, occupied a similar position in another establishment before that. Still, no one knew that she had had syphilis, and we had to depend upon the character of the osteo-meningeal disease for our diagnosis. Subsequently, however, another link of evidence was obtained. Three years after her death, her second daughter was under my care for a prolonged and severe attack of symmetrical keratitis. Neither this girl nor her elder sister presented any definite indications of taint; the keratitis was, however, well marked and conclusive. Thus the mother's brain and the daughter's eyes afforded mutual light on the diagnosis in each. Without the one it might have been disputed whether these lumps of deposit were really syphilitic, and without the other it might have been plausibly asserted that here at length we had an instance of interstitial keratitis without any reason to believe in its syphilitic origin. In connexion with this specimen of meningeal gumma, I may be allowed to remark that it is surely time that practitioners should avail themselves of the labours of pathologists, and attempt some distinction between the different forms of what is often called so vaguely cerebral syphilis. The occlusion of an artery and subsequent softening of brain-substance is one thing; a gumma of the dura mater is another. They are different in their symptoms, course, and progress under treatment. If a man be hemiplegic from softening of the corpus striatum consequent on arterial occlusion, there is but little hope that he will recover, however vigorously the iodide may be pushed. It may prevent further arterial disease, but cannot repair the brain. In cases of gumma the hopefulness of treatment is, on the other hand, indefinite, and the triumphs of the remedy are matters of every-day experience. In many cases, too, the differential diagnosis can be made with fair accuracy. If we say that we recognise three forms of cerebral disease—one in which the symptoms result from arterial occlusion, one from the irritation of gummata, and one from periosteal thickening, we may, I think, assume that sudden attacks of paralysis denote the one, that the second has all the symptoms common to cases of tumour, and that severe pain and headache go with the last. To each of the three conditions a whole group of symptoms might easily be assigned. We are surely advanced past the stage when it was justifiable to mention all the symptoms which occur severally in each, as if all were to be expected in the condition known as "cerebral syphilis." No doubt in some cases all these lesions are present together, and in many two of them, but this ought not to prevent us from trying to discriminate when, as is the case in most instances, discrimination is practicable. I am not sure that we shall not be obliged, as knowledge advances, to admit yet a fourth group of cases—one, namely, in which the symptoms are those rather of progressive and slow atrophy than of new growth or inflammation. I suspect that there are such cases, and that they are far less amenable to treatment than any of the others. It is of much interest to make a comparison between the pathological consequences of syphilis as observed in the coats of the eye, and those which occur in the brain and its membranes. Now we certainly have two forms of choroiditis. In one, as illustrated by the sketch which I now exhibit, small separate gummata, each a distinct swelling, form in various parts of the fundus and go through definite changes. After they have under treatment been absorbed there is not usually any tendency to relapse or to recurrence. They are for the most part easily influenced by treatment. But there is another form, which occurs both in the acquired and inherited disease, which is not easily cured, and which in the contrary shows a tendency to slow and steady progress. In it we rarely witness any proof of deposit or of inflammation, but atrophy of choroid and retina ensues with pigmentation, and frequently with involvement of large areas. This form occurs at periods long distant from the primary disease, as a late tertiary. In the inherited disease it usually happens after the keratitis has got well, and it proceeds, according to my experience, in spite of treatment, until sight is almost destroyed. It sometimes very closely simulates the appearances produced by retinitis pigmentosa, and has also a clinical history as regards rate of progress not very unlike. The syphilitic malady may be distinguished, I think, by certain differences: its imperfect symmetry, constant implication of the choroid, more or less, &c., from the true retinitis pigmentosa; but it would be tedious for me at present to go into this question in detail. (The conditions referred to were illustrated by a number of ophthalmoscopic drawings.) My chief reason for referring

to these two varieties of choroiditis is to suggest that there may be parallels in the case of the pia mater and cerebro-spinal centres. It certainly fits with my experience in practice that there are cases of obscure nerve disorder in the subjects of syphilis unattended by any of the violent accidents, pain, convulsions, sudden attacks of paralysis, &c., which usually accompany gumma and arterial disease, and which are far less easily benefited by treatment. In these the symptoms—progress in paralysis for the most part—are slowly and quietly developed, and they continue, in spite of the iodide and of mercury, steadily to progress. Sometimes it is the spine which is implicated, sometimes the cranial nerves. There is often great difficulty, notwithstanding the known history of syphilis, in deciding whether or not the disease is really syphilitic. I have been familiar for some time with a group of cases in which the curious condition of immobility of the eyes is apt to occur, all their motor muscles becoming paralysed. The levator palpebræ usually escapes. These cases are not attended by any of the symptoms of severe cerebral disease. They do not begin suddenly, but progress slowly, and in some cases at least they are not much helped by treatment. I have seen, I think, about half a dozen such, and in all there was a remote history of syphilis. In only one have I been able to obtain a post-mortem, and in that the brain has not been sufficiently examined to permit me to report as to its state. Usually one eye is affected at first, but later on both will suffer, and both become absolutely fixed. Dr. Barlow, at our last meeting, brought forward a living specimen of the enlargement of the spleen, which is not uncommon in syphilitic infants, and he told us, what is, I believe, supported by general observation, that this splenic swelling may wholly disappear, and leave nothing which can be recognised either during life or at the post-mortem. I wish to support his statement on this point, and to extend the observation to the liver also. In several cases I have witnessed, in young persons the subjects of inherited taint, great enlargement of the liver, which has subsequently wholly disappeared. It is difficult to believe that there is any kind of gumma-growth in such cases, and we are obliged rather to fall back upon the hypothesis of mere vascular turgescence. This turgescence may possibly in its turn be due to some disease in the nervous system. I well recollect a lad whose case illustrated what I am saying. He had on more than one occasion such enlargement of the liver that it hung below his navel, and was easily visible as a swelling when he lay on his back in bed. I had had him under observation for years. He had nodes on almost all his long bones, and his mother and several of his brothers and sisters had suffered most severely from syphilis. At length he died. At the post-mortem, which was made by my colleague, Dr. Sutton, the liver was found natural, and, excepting some patches of slight thickening of capsule, showed no changes. I might just add, in reference to this case, that the lad died of albuminuria, and that his kidneys were in a state of advanced disease (contracting). Dr. Sutton did not consider their state in any way directly connected with syphilis, and he commented on the absence of hypertrophy of the heart as a special feature in the case. It occurred to me to suspect that their disease might possibly have been induced by the very prolonged use of iodide of potassium. This is, however, mere conjecture. It seems clear, however, that among the unexpected incidents of constitutional syphilis we meet occasionally with general enlargement of such viscera as the spleen and liver, independent of any of the conditions of new growth which we recognise as specific, and capable of spontaneous resolution. Let me just add that a parallel condition of temporary great enlargement of the liver is sometimes encountered in cases of xanthelasma without any syphilitic history. I have here drawings which illustrate the common conditions of gumma in the liver, but I will not intrude upon the time of the Society further than just to hand them round. One of them, showing a cicatrix, is valuable because it came from a case of inherited disease. Its subject was a lad who had characteristic teeth and physiognomy, and who had also a large gumma in one testis and disease of the coats of his aorta. The autopsy was made by Dr. Sutton, and I believe that Dr. Turner will subsequently show for that gentleman a drawing of the artery. Arterial disease in inherited syphilis is probably very rare. I should like to ask the attention of surgeons and pathologists to the question of affections of the veins and of the lymphatic trunks in late constitutional syphilis. But few cases of syphilitic phlebitis have, I believe, as yet been recorded; yet probably most surgeons are familiar with the fact that inflammations around varices (and even about healthy veins) are not infrequent in the subjects of syphilis. I think also that I have seen several cases in which the thrombosis and phlebitis were attended by other conditions sufficiently peculiar to justify a belief that they were of specific origin. In some there has been great excess of inflammation, a large hard mass forming in the cellular tissue and threatening to slough, much as subcutaneous gummata often do. These cases are much benefited by the iodide so far as prevention of sloughing is concerned, but the thrombotic plugging remains. I am not aware that any specimens have been produced showing syphilitic disease of the cerebral veins. As regards the lymphatic trunks, I believe that they are liable to disease just as the arteries are, and that it results in similar conditions of plugging and its consequences. In a clinical lecture published in THE LANCET some months ago I detailed several cases in which one lower extremity became greatly swollen and remained for long in a state of solid œdema, there being in some reason to believe that the lymphatic trunks were inflamed, whilst in all there was a history of syphilis. In one remarkable case, I had treated the gentleman many years before for syphilitic paralysis of the fifth nerve. In him a large network of cord-like lymphatic trunks could be felt over the lower part of his abdomen, one thigh being greatly swollen. There was no gland disease—and I am not speaking now of affections of the glands, but of the trunks. It would be very interesting, should opportunity for microscopic examination occur, to ascertain how far in this condition the changes in the walls of the lymphatics are similar to those seen in the arteries. Lastly, before I sit down, may I be allowed to suggest that there is one part of the nervous system which has hitherto been much overlooked in reference to its suffering from syphilis. I allude to the vaso-motor ganglia. It is not improbable that certain vague forms of nerve-disturbance occurring in syphilitic subjects—the severe dyspepsia, for instance, which is sometimes so definitely relieved by the iodide—may be due to disease of the ganglia. It may, perhaps, be somewhat difficult in respect to many of them to determine what ought to be the group of symptoms which their disorganisation would be likely to produce. I have begun with the first, the least, and the easiest of investigation — the lenticular. The nerve-filaments proceeding from this ganglion supply motor force to three different structures, and I make bold to believe that when these three structures are wholly paralysed without implication of any other, the disease can be nowhere else than in the ganglion itself. I further assert that such cases are met with in practice, and that in my experience their subjects are always those who have suffered from syphilis. The three motor functions referred to are, dilatation of the pupil, contraction of the pupil, and accommodation. If the pupil, without being either dilated or contracted, be absolutely motionless, and if there be absolute cycloplegia or paralysis of the ciliary muscle, and if with these conditions there be no defect of the orbital muscles, then I think the disease must be destruction (temporary or permanent) of the ciliary ganglion. I have seen a series of such cases, and although I am sorry to say—no, not sorry, that is not the right word—that I have as yet had no opportunity for post-mortem dissection, yet so closely have they resembled each other that the diagnosis is, I think, fully justified. In most one eye has been affected in the first instance, and the other has followed after an interval. Some have been benefited by treatment, and others not so. It will be very interesting in the future to try if we can make a plausible guess at the diagnosis of similar disease in any other of the ganglia.

Mr. HULKE said that in two, if not in three or four cases, he had observed considerable thickening of the central artery of the retina, and in one of these cases at least it was associated with syphilis. The lumen of the vessel was in places reduced to a mere thread by the thickening in the coats,—a thickening irregular in disposition. He remarked upon the difficulty experienced in forming a precise diagnosis in some cases of visceral syphilis, and cited two interesting cases which proved exceptions to two of the

general rules just laid down by Mr. Hutchinson. The first was the case of a young gentleman who had received no treatment for the primary sore, and who became the subject of marked constitutional syphilis. Mr. Hulke saw him for some imperfection of sight, the patient then being under iodide of potassium treatment. There was then slight prominence of one of the eyeballs, a prominence which became more and more marked; blindness from choked disc occurred, and the cornea was on the point of sloughing. After consultation the eyeball was removed, Mr. Hulke, however, not favouring the operation. All this time there were no brain symptoms. The orbital growth recurred, but it was not until about three months and a half after the operation that the patient began to suffer from headache, a symptom soon followed by epileptiform convulsions, from which he died. At the post-mortem a large gummatous tumour of the dura mater was found in the middle fossa of the skull, compressing the brain. Here there was a case of well-marked syphilitic gumma of the dura mater, growing into the skull and orbit, and not producing any headache except at the close of the case. With regard to the other class of cases of "cerebral syphilis" to which Mr. Hutchinson had alluded, Mr. Hulke said that some years ago he first saw a man suffering from complete paralysis of all the muscles of both eyeballs, and some unsteadiness of gait. Under iodide of potassium he completely recovered; so that occasionally at all events patients presenting these diffuse symptoms do recover.

Dr. BUZZARD, alluding to the case of gummata in the choroid described by Mr. Hutchinson, pointed out the resemblance between the ophthalmoscopic appearances of that case and those of an instance of choroidal tubercle which he had seen some years ago.

Dr. GOODHART exhibited some microscopical sections and drawings of Fibroid Phthisis in Syphilis based upon the following four cases:—1. A female, nineteen years of age, whose parents died of phthisis, had suffered four years before admission from ulcers on the legs, sore-throat, and skin eruption. She had suffered from cough for three years, and there was marked evidence of phthisis of the right lung. Death occurred from exhaustion and diarrhœa, and the right lung was found consolidated, with a large cavity at its apex, and smaller ones elsewhere; the upper part of the lung was greyish and tough, the lower more recently inflamed. On the left side the changes were less advanced, and occurred in the form of greyish and pellucid patches and tracts between the lobules. The epiglottis was slightly ulcerated. 2. A married woman, twenty-seven years of age, the subject of syphilitic stricture of the rectum. In both lungs at the bases there was fibroid disease in the form of intersecting white bands, and a bronchiectatic cavity the size of a nut. 3. A male, twenty-three years of age, who contracted syphilis two and a half years previously to his admission in 1874, for extensive phthisis with albuminuria. At the post-mortem pigmented cicatrices were seen on both legs; the right lung was universally and firmly adherent, and its posterior part pervaded by patches of fibroid induration, the apex of the lung not being involved. The vessels were contracted into a tough mass, and small cavities found in the lung-tissue round them. There was a cavity in the hinder part of the upper lobe of the left lung, and scattered around it were a few small grey nodules. A patch of recent induration, of a reddish tint, and traversed by dilated tubes, occurred at the back of the lower lobe. Puckered fibrous patches occurred throughout the lung, which was emphysematous. There was superficial ulceration of trachea, atheroma in aorta, a few ulcers in cæcum, and lardaceous disease of intestines, liver, spleen, and kidneys; testes healthy. Microscopical examination showed a very large amount of interstitial change, nuclear growth in the alveolar walls and around the bronchioles; but the arteries were not affected except by the general thickening of their outer coat. 4. Was published in the Path. Trans. for 1874, in which the lungs showed puckered fibrous change irregularly distributed throughout. There was a gumma in the liver in this case. In all these cases the minute changes consisted in thickening of the lobular septa, coats of the vessels, and bronchi, with dilatation of the latter, the fibrous septa being in places crowded with small cells and nuclei growing into the lung-tissue between the alveoli. There seemed to be nothing special about the periarterial thickening, but the extreme vascularity of the new tissue was a point of importance, and probably the source of hæmoptysis in fibroid phthisis. Dr. Goodhart said that he had brought the cases forward to strengthen the numerical proof that syphilis is not uncommonly associated with fibroid changes in the lungs. The post-mortem records of Guy's Hospital for twenty years furnish 177 cases of visceral syphilis, in 42 of which the lung was diseased. In 6 it was only acute pneumonia. Most of the remaining cases (36) are described as "phthisis," but one or two are specially named "syphilitic disease of the lung" Of this number 24 are examples of fibroid phthisis, and the remaining 12 compose the other group of ordinary tubercular phthisis. From this he thought there would be little doubt that syphilis and fibrous change go together in the lung, as elsewhere. In histological characters these lungs did not differ from those of mere chronic forms of tubercular phthisis, chronic pneumonia or miners' phthisis. Nor could it be expected to be otherwise. Referring to arterial changes, Dr. Goodhart considered that the primary stages of syphilitic growth were in the outer coats of the vessel; and in that did not differ from many inflammatory conditions. He had not seen the endarterial changes described by Dr. Greenfield, and they certainly were not essential to the production of gummata. He also failed to see how the process differs histologically from endarteritis deformans, which occurs in larger vessels, and certainly in many non-syphilitic subjects. But although no histological definition was possible of these changes, as being characteristic of syphilis, yet to the naked eye they were quite distinctive. The fibroid disease of the lung is prominently fibrous and not tubercular; attacks the base or root of the lung in great part, and not the apex; is associated with puckerings of the pleura, and leads to gangrene and not molecular or cheesy changes. It is less evenly distributed and diffused than chronic pneumonia or fibroid induration from pleurisy; it is symmetrical, and not unilateral. Histologists were expected to declare distinctions which do not exist; and this is peculiarly the case with syphilis, which depends so much for its character upon its eruptive form. Examples of enlarged spleen in congenital syphilis, such as that brought forward by Dr. Barlow, illustrated this. Sometimes temporary enlargement of the liver occurs also, subsiding rapidly under treatment, pointing to some vascular disturbance and acute swelling comparable to a cutaneous rash. He had met with a curiously blotched liver in a syphilitic subject, which showed nothing else but dilatation of vessels and slight cirrhosis; just as the skin and mucous membranes, inflamed during life, show no evidences of these disturbances after death. With regard to the symmetry of syphilis, Dr. Goodhart observed that in nineteen cases of the pulmonary affection both lungs were considerably involved; that the majority of cases of syphilitic orchitis occur in both testes, and he did not think these tertiary lesions were so unsymmetrical or purely local as Mr. Hutchinson averred. It is quite true that visible gummata are often single, but that is easily explained by regarding the late syphilitic lesions as syphilised inflammations, with more or less of an eruptive tendency. It was as if in early syphilis the material or the process was so intense that the various tissues were at once excited to rebel, but later on the poison becomes thinned out, and it requires some local deterioration of tissue, or perhaps intensification of the poison by increased vascularity, to call the effects of the disease into existence; and if this be so, it is hardly likely that the local irritant will act symmetrically, though the all-pervading habit of the tissues may be ready to produce the gumma if it should.

Mr. HUTCHINSON said that with regard to the non-symmetrical distribution of tertiary lesions, his view was that the tissue was so damaged by the syphilitic fever that any local cause might evoke the tertiary growth. It was rare for any large gumma to be found except in those subjects in whom there was still active virus in the blood. Dr. Goodhart had not shown the lung affection to be restricted to the tertiary period, and his mention of gangrene was interesting, for might not a process comparable to phagedæna occur in the lung? Then the testis was not usually affected late in the disease, and in about one half only of the cases it was symmetrical.

The meeting then adjourned.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

AT the meeting of this Society held on the 24th ult., Mr. S. Cartwright, President, in the chair,

Mr. T. EDGELOW described a case of Maxillary Disease presenting remarkable if not unique features, which had recently come under his care. A circumscribed swelling occurred in connexion with the right maxillary bone; it was situated on its outer side, and was connected with a sinus opening by the side of the second bicuspid tooth; this fistula was about an inch in depth, healthy pus escaping from it on pressure; at its extremity a hard substance could be distinctly felt. The patient was sixteen years of age, and all the permanent teeth being present, with the exception of the wisdom tooth, it was supposed to be an impacted supernumerary tooth, but on cutting down upon it, it proved to be the second temporary molar, which not only showed that it had been decayed, but was actually stopped with an amalgam filling, proving that it had not only descended with the other temporary teeth, but that it had subsequently been driven beyond the range of the permanent teeth, giving no more trouble beyond the disfigurement occasioned by the tumour, and a slight discharge which had lasted five years.—Mr. SALTER said that in the only case of dentigerous cyst yet recorded (and that was by Mr. Salter) in which a temporary tooth was the dental element concerned, the tooth was also a second upper molar. However, Mr. Edgelow's case was not a cyst of this character, and he considered that the tooth, having once been in normal position, had receded, or been forced, into the locality it afterwards occupied. The apparent cyst might have been the sac of an alveolar abscess, associated with this tooth. As regards Mr. Edgelow's second case, Mr. Salter said he had seen such a condition repeatedly, in which the second temporary molar tooth was pushed back into the substance of the jaw by the convergence and continued approximation of the crowns of the first bicuspid and first permanent molar. Mr. Salter remarked that he had never seen the like effect produced upon any other temporary tooth than the second molar.—The PRESIDENT asked whether a bicuspid tooth had not been unnecessarily sacrificed in the operation. He thought that the tooth could have been removed without the extraction of this sound tooth.—Mr. COLEMAN thought Mr. Edgelow's very interesting and unique case could be best explained by regarding the second temporary molar as placed in a double inclined plane—viz., between the advancing crowns of the first bicuspid and first molar, which in their progress pressed or squeezed it up into the alveolus as teeth are sometimes so pressed up under very undue pressure.—Mr. HAMILTON CARTWRIGHT said that if Mr. Edgelow was correct in his assumption that this temporary tooth was encapsuled with an osseous envelope, he thought that this case might be explained by the process of maxillary development. On the eruption of the second teeth absorption would take place, and this tooth would have been wedged up by the action of the descending second bicuspid and first molar. Eruption completed, deposition of bone would be so active that it might have encased this foreign body like a sequestrum in necrosis. The process ceasing, the tooth acted as an irritant and set up reabsorption, chronic mischief, and discharge.

Mr. H. CARTWRIGHT then showed, as an antithesis to the preceding case, a patient the subject of Caries of the Right Superior Maxillary Bone, in exemplification of the irritation sometimes set up by a slight cause. The patient came to him with a tumour of the periosteum covering a large portion of the palate, this being in connexion with two sinuses, one of which was at least an inch in depth, running parallel with the floor of the nares. Laying these open, he found the bone extensively diseased, and on removing it with a gouge he came upon the apex of a bicuspid root, not much larger than a hemp-seed, whence the mischief had evidently primarily proceeded. The wound was now healing from the bottom, and all discharge had ceased.

Mr. NATHANIEL STEAVENSON exhibited some plaster casts showing the result of his treatment of a case of Hypertrophy of the Intermaxillary Bone. The patient, being a lady of much personal attraction, was anxious to have the deformity removed; the protrusion of the tumour preventing her lips from completely closing, whilst the absence of the lateral and the wide separation of the central incisors, and a mass of indurated gum exuding between them and embedding the canines on either side, added much to the unsightliness of the defect. Seeing that no mechanical contrivance could be of avail without operative interference, the incisors were extracted, and, the hypertrophied gum being removed and the soft tissues dissected away, the abnormally developed bone was excised under the influence of nitrous oxide gas and ether. The wound soon healed, and he then supplied the vacancy by a suction plate.—The PRESIDENT congratulated Mr. Steavenson upon the success of his treatment, the adoption of which was much approved by other speakers, Mr. Coleman, Mr. Edgelow, Mr. Parkinson, &c.

Mr. A. COLEMAN then showed an invention, designed by Dr. Orphoot, for keeping the mouth dry during dental operations. Its ingenious character was commented upon by Mr. Coleman, Mr. Morley, and Mr. Napier, though a general opinion seemed to prevail that it could only be used under exceptional circumstances.

Mr. SALTER exhibited an Odontome of the kind called by M. Broca "Radiculaire," but which Mr. Salter names "Hernia of the Fang." He remarked upon the extreme rarity of this tumour, there being only four recorded cases, and two unrecorded, of which he knew. The specimen was shown in its entirety previous to its dissection for microscopic scrutiny, after which it will be again exhibited, and the results of the investigation given to the Association.

Mr. HAMILTON CARTWRIGHT read Notes of a remarkable case of Alveolar Hæmorrhage occurring in a patient the subject of jaundice. A loose stump was removed from the gum, whence uncontrollable bleeding ensued, not only from the wound, but from the whole surface of the mucous membrane. The case was considered wellnigh hopeless, whilst it also transpired that the patient, though a healthy man before he became the subject of icterus, had subsequently to that period had hæmorrhage, not only from the gums, but also from other parts. When he saw the patient, after two days' bleeding, hæmorrhage was taking place from the whole surface of the gum, and the patient was much exhausted. Perchloride of iron had been extensively used, and although it had checked the bleeding on the first application, it utterly failed to arrest it afterwards. With the consent of the gentleman attending the patient, Mr. Cartwright took a model of the patient's mouth, and made a gutta-percha compress accurately adjusted to the teeth, into either side of which strips of lint were placed over some solid perchloride of iron, as suggested by Sir James Paget, whilst space was left for the administration of food, thereby avoiding the necessity of giving it per rectum. Opium was also given freely. Bleeding was thus arrested for nearly twenty hours, but subsequently recurred, when the compress was re-applied, with the result of arresting the hæmorrhage. The attention of the Society was drawn to the not unfrequent occurrence of epistaxis in jaundiced patients, whilst its members were asked to give their experience of the effects of other constitutional lesions in inducing a hæmorrhagic tendency. The use of the liquid perchloride was reprobated on account of the sloughing it caused if primarily unsuccessful in its use, thereby creating a larger surface from which bleeding could ensue, whilst he extolled the use of opium in such cases, though as a rule internal remedies were not of much avail. In the present case he believed that the unremitting care of his medical attendant, the careful adjustment of the compress, and the means adopted of feeding the patient, in combination with the opium, saved the patient's life. Mr. Cartwright also remarked that in cases of this kind those around the patient would frequently misjudge the amount of hæmorrhage taking place. It was, of course, a matter of great importance not to remove the compresses frequently in obedience to others' fears, and he thought that a good criterion of the amount of blood swallowed was to observe the frequency of swallowing by the action of the larynx.—The hour being late, after a few remarks from the President, Mr. Salter, Mr. Coleman, and Mr. Napier, the meeting adjourned until the 28th instant.

Reviews and Notices of Books.

The Germ Theory applied to the Explanation of the Phenomena of Disease. By T. MACLAGAN, M.D. London: Macmillan and Co. 1876.

WHEN, two years ago, the Council of the Pathological Society decided to set apart some meetings for the discussion of the germ theory of disease, they entrusted the task of opening the debate to Dr. Bastian, who, in an exhaustive and closely reasoned address, took the negative side of the question; leaving to others the duty of supporting, by what arguments they might, the theory that the facts of contagious disease can best be explained by assuming the existence of living organisms or germs. To the impartial observer the result of that debate was apparently fatal to the germ theory; and the distinguished opponent of that view, in his closing speech, cleverly turned the arguments adduced on the other side to the support of his own position. Among the speakers in favour of the germ theory was the author of the present work, and he has doubtless felt that the occasion of the debate in question allowed him too little time to discuss his case fully, for, seizing upon one of his admissions, Dr. Bastian triumphantly inquired whether he could wish for any stronger support than he had obtained from Dr. Maclagan.

But although Dr. Bastian gained a victory, as he undoubtedly did, it was rather due to his own forensic skill, and to the incomplete manner in which the case was stated on the opposite side. It is, then, very desirable that the precise meaning and extent of the germ theory of disease should be explained and discussed at length, and in so far as that theory can be applied to the specific fevers it is so discussed in the work before us. Dr. Maclagan is quite right to insist upon the elimination of any discussion as to the truth or not of heterogenesis in treating of the germ theory of disease, for it matters not at all whether the germs of disease arise *de novo* or are only derived from antecedent germs. The question at present is simply this: Can the phenomena of the febrile process, and the facts of contagion be better explained on the hypothesis of their production by the growth and development of specific germs than on any other hypothesis? It will be time enough to discuss the wider question when the truth of the germ theory is established.

The plan of the work is simple, and aims at a completeness which it, in great measure, attains. It opens with a discussion upon the nature and mode of action of contagion, and thence passes at once to the specific fevers, which are divided into the eruptive and non-eruptive, the latter being represented by relapsing fever, to which is allotted the last chapter in the work. The intermediate portion—in fact the greater part—of the volume deals in turn with the phenomena of the febrile state, and the changes undergone by the organs, each and all of which the germ theory is made to be fully competent to explain.

We must pass over the arguments upon which Dr. Maclagan claims support for the theory of a *contagium vivum*. They have been ably propounded by Dr. Sanderson, and are familiar to most of our readers. The application of this theory to the actual diseases themselves is of more extended interest, and it is to this part of the work that we desire especially to call attention. The characters common to all the eruptive fevers, their incubation periods, the febrile state, their characteristic local lesions, definite duration, and the frequency with which immunity is conferred upon the individual from a second attack, are held to be best accounted for on the hypothesis that each fever is represented by its own specific organism, which from the moment of its entrance into the system to the time at which the first symptoms of the disease appear, is growing and multiplying. That the growth and nutrition of this organism, which lives parasite-like in the body, requires water and nitrogen, the deprival of which from the body constitutes the chief feature incidental to pyrexia; that, in accordance with its parasite nature, it seeks and obtains a special nidus for its development in particular regions of the body, and thus gives rise to the "local lesions"; that the definite duration of the disease is consistent with the exhaustion of the material for the sustenance of the organism, an exhaustion upon which can also be explained the protection of the individual from further attacks—these are the broad statements upon which are grounded the arguments contained in the work.

In the simplicity of the germ theory of contagious fevers lies its great merit. Once grant the existence of the living contagium, and it is not difficult to see how the wasting of nitrogenous tissues that occurs in the pyrexia can be explained on the view that the contagium itself appropriates the nutriment destined for the repair of the tissues. A like appropriation of water by the contagium accounts for many of the febrile phenomena, as well as for the *decreased* elimination of urea sometimes noticed. In like manner it is owing to the activity of the processes by which the living contagium appropriates materials destined for the tissues that the increased activity of the circulation occurs, and, *pari passu*, the increased body heat. The varied nervous symptoms of fever, rigors, headache, convulsions, coma, &c.—the typhoid state itself—are reduced to the denutritive changes undergone by the nervous centres by the same property of growth at the expense of the tissues that the contagious organism exhibits. It is hardly just to the author to dismiss this part of his work so curtly, but we must refer our readers to the chapter on the Nervous Symptoms of Fever for fuller information.

The occurrence of local lesions characteristic of different forms of fever is held to be strictly analogous to the manner in which parasites seek out and dwell in particular regions of the body, and although Dr. Maclagan lays great stress upon recent notable investigations into erysipelas, diphtheria, sheep-pox, typhoid fever, &c., it must be admitted that a rejection of the facts of pathological mycosis is not necessarily fatal to the theory of "germs." The germ theorist, like the panspermist, can always fall back upon the existence of particulate organisms minute "beyond the pale of all sense," but which, although eluding detection, yet deal the deadliest blows upon the human race.

In conclusion, we think it well that such a book as this should be written. It places before the reader in clear and unmistakable language what is meant by the germ theory of disease. So far Dr. Maclagan only deals with the specific fevers. A harder task lies before him. The facts of contagion fit in admirably with the doctrine of vital germs, but the phenomena of pyrexia are not limited to the narrow circle of such diseases. We shall look, then, with interest for the application of this theory to the non-specific fevers, with which the author states in his preface he hopes to be able to deal.

Transactions of the Pathological Society of London. Vol. XXVII., comprising the Report of the Proceedings for the Session 1875-76. London. 1876.

JUDGING from the present volume of the Reports of the Pathological Society, there is not only no falling off in the amount of material brought before the meetings of the Society and the activity of its members, but a great increase in both respects. The present volume consists of 491 pages, exclusive of some 50 pages of lists of members

and contents, and there are reports of 112 specimens and cases of the most varied kind, a long discussion on the Pathology of Syphilis, and a report on Movable and Floating Kidneys. The volume is, moreover, enriched with 14 plates and 10 woodcuts, the value of the former being enhanced by the fact that they are nearly all the work of the members who exhibited the specimens. The increase in size of the volume is almost entirely due to the greater number of cases and specimens exhibited, and at the present rate of increase two volumes per annum must soon be issued. The arrangement of the cases might, we think, with advantage be improved. Beyond the classification under the headings of various systems—nervous, respiratory, and so on—no attempt seems to be made to place similar cases side by side. Thus we find two cases of cerebral aneurism separated by a whole series of cases of disease of other parts of the nervous system, and, similarly, cases of obliteration of the superior cava are widely divorced. This might readily be obviated, and a reform in this respect would greatly facilitate the reference which is one main use of these volumes. Those whose opportunities for the observation of morbid anatomy are limited and those who take an interest in the advance of pathological science will alike find much valuable material for reflection in this volume.

Transactions of the Clinical Society of London.
Vol. IX. 1876.

THE present volume of the Clinical Society's Transactions, containing the reports of the cases read during the session 1875–76, is of similar character to those which have preceded it. The cases are for the most part of considerable interest, and several of them well narrated. Some of them served to evoke considerable discussion when they were read—a discussion often of more interest than the cases themselves; and we could wish that the volume were enlivened by some of the criticisms and remarks which were made upon them at the time. Happily the reports are for the most part brief and readily digested, an average of four pages serving for each case; yet we cannot but think the Society's meetings of more value than the reports.

How to Use a Galvanic Battery. By HERBERT TIBBITS, M.D. London: J. and A. Churchill. 1877.

IN a pamphlet of a little over fifty pages, Dr. Tibbits has managed to compress a large amount of information of just the kind that the practitioner requires. It embodies a discourse on Electro-therapeutics delivered by the author before the Hunterian Society in November last (an abstract of which we recently published), together with numerous illustrations, and we can recommend it as a really useful practical guide to the subject.

WAR PROSPECTS FROM A MEDICAL POINT OF VIEW.

THE Conference may now be reckoned among the things of the past, and the impossible, to borrow the phraseology of the Prime Minister, has again happened. Whatever might have been the opinions held as to the rights or wrongs of this or that Power, the prophecies of politicians have been falsified, and things have undergone a sort of *bouleversement*. It was prophesied that Turkey would prove as impressible as one of her best sponges if the Powers, and especially if England, agreed with Russia to administer a gentle squeeze; and, on the other hand, that Russia with her enormous army, all ready mobilised and equipped, and with such a pretext as she had for making war, would prove an inexorable vice that it would require all the tact and acumen of diplomacy to relax. The latter has turned out a soft and gentle instrument, and the former as hard and incompressible as granite. It has been aptly remarked by a French writer that young Powers, like young animals in general, are blest with good appetites, and that Germany and Italy, hungering and thirsting for more territory, can regard the present crisis hopefully. Whether this be so or not, it would rather seem to us that Russia, in her infancy as regards civilisation, has nevertheless grown so big and lusty that she has burst her swaddling clothes, and looks with longing eyes to the goodly raiment of an old neighbour of hers, supposed to be stricken with sickness and senility. With signs of an impoverished blood and feeble circulation, together with impaired action of his central organs, it seemed scarcely likely that he could outlive the inflammatory eruptions attacking his members; the prognosis was gloomy; all the political doctors were summoned to a consultation, and after various compromises, a properly diluted and sweetened potion was prepared and presented, which that wicked, wilful old man not only refused to swallow, but actually even rejected the advice of all those eminent doctors summoned from afar in favour of some compound prepared from indigenous herbs and simples by his own new cook. This perverse old man has had the impertinence to declare that they were all ignorant of "his constitution," and that their drugs were, if not poisonous, at any rate too powerful for him to think of taking; and to add, at the same time, that he already felt better, and had every confidence in getting quite well again if they would be kind enough to leave him quite alone.

Whether all these skilful doctors will be content to leave him to himself, or whether one of them will consider it imperative to enforce his remedies on the patient, lest other and grave political maladies should occur and spread, or that the sick man, dying unawares, should decompose and create disastrous diseases in his midst, or that others might step in at his burial for the purpose of parting his goods, is more than we can say; but it is possible that attempts may be made to coerce the patient and isolate him in some safe Asian retreat until he happily dies, and his executors step in to arrange all his affairs amicably for their own benefit.

Dropping all metaphor, however—for metaphors are so many pitfalls for the unwary,—we may inquire into some of the medical aspects of a possible war between Russia and Turkey. While we have nothing to do with politics of course, we would not, *en passant*, lose this opportunity of expressing our conviction of the perfect sincerity of the Czar in his utterances to our ambassador. It will be remembered, to his lasting honour, that he emancipated the serfs—that he possesses a high, unblemished, and eminently peaceful character; and we may therefore count on his influence being cast into the scale in favour of peace. It would be almost impossible for anyone to form even an approximately correct forecast of the result of a war where so much is uncertain, and where there are so many unknown factors. It appears to us, however, on what may be termed sanitary grounds and those of army hygiene, that the conquest of Turkey would be a matter of unusual risk and difficulty, and, with ordinary judgment and foresight on the part of the Turks, the war might be protracted beyond one season with disastrous effects to the belligerents of both sides. Although the Turkish soldier has very fine military qualities, being brave and by nature warlike, docile and easily disciplined, enduring, and temperate in all things, he requires good leading; and we know nothing as to the number and qualities of the officers, their powers of organisation and administration, the nature of the Turkish preparations, or the amount and character of their supplies; and it is improbable that Turkey could, in the

long-run, successfully withstand such a big military power as Russia. Assuming that Austria could be relied upon, it is possible that Russia might attempt the invasion of Turkey with a force of some two or three hundred thousand men; proceeding, let us suppose, through Roumania to the Danube, and utilising the line of rail passing from Odessa to Kischeneff, *viâ* Jassy, to Bucharest and Giurgevo. In that case it seems to us, judging from the experience gained in some late wars, that there would be extreme difficulty in transporting the troops to the front, and the sick and wounded to the rear. The two great natural obstacles in the path of the Russians would be the Danube and the Balkans, and, if the Turks retained command of the sea, Varna would be for them a most important position.

Apart, however, from all military difficulties, there are very grave ones on the score of climate and disease. Very much will of course depend upon the character of the season, upon the duration of the campaign, and its successful progress, but it must never be forgotten that the valleys of the Danube and its tributaries are the homes of endemic diseases, of malarious diseases, agues, dysentery, and severe and exhausting fevers; and that in the medical history of all the campaigns against the Ottoman power, disease has played a formidable part. Bulgaria is not so marshy near the Danube as Roumania. The climate of Roumania may, on the whole, be regarded as good, but it is subject to extreme changes of temperature—hot by day, and cold at night—and it is owing to these alternations, together with the miasma arising from the swamps in the vicinity of the Danube and its affluents, that pernicious aguish fevers are prevalent. It is scarcely probable that an army in the field would escape without much inefficiency from sickness—such as fevers, diarrhœa, and dysentery, possibly cholera, to which other diseases might be superadded or not, according to the nature and adequacy of all the preparations and arrangements, or the reverse. The success of an expedition will greatly hinge on supplies of good diet, sufficient clothing to protect against nocturnal cold, and a rapid advance. The Russians in 1828 suffered terribly from disease, and the losses among our own troops at Varna immediately before the Crimean war, from cholera, diarrhœa, and fever, were considerable. In a paper read by Dr. J. J. Woodward, U.S.A., at the International Medical Congress of the Philadelphia Exhibition of 1876, on Typho-malarial Fever, the author has with much care and erudition collected, from the experience of previous campaigns, a number of facts pertinent to the subject under consideration. There was the so-called Hungarian fever which for three centuries played so formidable a part in the campaigns undertaken by the House of Austria against the Turks—a fever of so fatal a character as to occasion the proverb that "Hungary is the grave of the Germans." This is now generally admitted to have been a hybrid between the remittent fevers endemic to the soil and typhus. In 1566 the soldiers of Maximilian II. returning to their homes spread typhus fever far and wide; and before this, in 1542, a fever broke out in the camp before Ofen in the Imperial German army that had been led against the Turks, which was said to have killed 30,000 men in the subsequent disastrous retreat. The epidemic of 1566 is described by Thomas Jordan, who accompanied the army of Maximilian as his chief medical officer. The spring had been exceedingly wet, the great Hungarian streams had overflowed their banks; the summer following was unusually hot, and the Germans were badly supplied with food. The fever first appeared while the army was encamped at Komorn, at the point of junction of the Waag and the Danube—a marshy malarial plain. In the camp at Raab, where the Raab and Rabnitz empty into the Danube, it became still more destructive. Although the force of Maximilian at Raab camp was about 80,000 men, he was unable to take the offensive against the Turks, and in early autumn had to retreat with the remains of his army. In 1597, in 1661, and again in 1717, in the army with which Prince Eugene besieged Belgrade, when the Prince's force was shut up in the marshy plain between the Danube and the Save, this Hungarian fever broke out, accompanied by dysentery. In 1788 the campaign which the Emperor Joseph II. undertook against the Turks proved a disaster from similar causes. Although this fever was probably mainly typhus or relapsing fever, still the observers of that day believed with much reason that the malarious fever which occurs every year in Hungary, the valley of the Danube, and Southern Russia, and attains malignity only in epidemic years, was an important factor. Side by side with the Hungarian fever there appeared among the German soldiers another disease of more chronic character, known as Languor Pannonicus, and compounded apparently of malaria and scurvy. Dr. Woodward, curiously enough, hazards the prophecy that when an army again goes into the valley of the Danube, the old Hungarian plagues will re-appear, and prove a more formidable foe to be encountered than the Turk.

As might be expected, Russia is in a position very superior to Turkey as far as the organisation of the medical service, hospital *matériel*, and transport are concerned; for, as far as we can learn, the Turks have a medical organisation that, like their "constitution," looks admirable on paper, but the efficacy of both has yet to be tested by their application.

It is excessively unlikely that there will be any recurrence on a large scale of such diseases as are indubitably traceable to the total ignorance of the laws of health and an utter neglect of any hygiene that characterised past days, but that an expedition against the Turks on a large scale—and it must be on a large scale to be successful—would prove a difficult, dangerous, and expensive undertaking we have no doubt.

ON THE RELIEF OF PAIN BY THE OUTWARD APPLICATION OF HYDRATE OF CHLORAL.

To the Editor of THE LANCET.

SIR,—I am desirous to assist in bringing under the notice of the profession the benefit to be derived in the relief of pain by the external application of hydrate of chloral, for the knowledge of which I am indebted to my friend Dr. T. S. Dowse, of the Central London Sick Asylum, Highgate. The vast field that is afforded by these metropolitan institutions for the cultivation of practical medicine is not neglected by Dr. Dowse, but is turned by him to good account. The results of the trial of hydrate of chloral as an external application have lately been given. I would beg permission to add my experience of this mode of using this drug, in order that it may become more widely known.

I have tried it with great success in neuralgic pains and in cancer of the breast, in cases in which other sedatives and narcotics have failed to give relief.

The mode of application is by the saturation of folds of lint of the size of the part to which it is to be used, brought into close contact, then covered with three or four layers of lint covered with oil-silk or spongio-piline wrung out of hot water. The application to raw surfaces, of course, requires some care in manipulation.

The strength of the solution is about four drachms to sixteen ounces of water. The addition of a small quantity of glycerine is advantageous. Chloride of zinc or perchloride of iron can be combined with the chloral in certain cases.

I remain, Sir, your obedient servant,

Holloway, N. W. B. KESTEVEN, M.D.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 10, 1877.

IT is a moot question whether too much or too little legislation is likely to prove the more injurious to the inner life and domestic interests of a nation. This country has experienced both forms of maltreatment, and suffered alike from the effusively paternal and contemptuously indifferent or preoccupied policy of its law-makers and administrators. Home affairs have been left to drift while English statesmen cudgelled their brains to find a solution for some enigma of foreign politics; and the tight little island has been made to tremble under a tempest roused by some PROSPERO with a grievance.

These vicissitudes have left their mark on that wondrous concrete, of rugged facts and experiences bound together by prudence, which we call the Constitution. During epochs of distraction, when every eye has been strained towards the horizon, the worst of mistakes and mismanagement have been overlooked at home. In a reverse of feeling some of these faults have been mended, others exaggerated by the meddling and muddling of men with abundant experience in the handling of huge subjects, but neither the wit nor the skill to accomplish a little useful reform at home. Perhaps it is rather provoking than strange that a puny conceit has in process of time come to possess the minds of aspiring politicians, that mere prosaic attention to the needs of the people is at best but a low form of statesmanship. This vain notion found picturesque expression on a memorable occasion in the taunt hurled at a statesman who professed some care for the more homely interests of the people, that his was "a policy of sewage."

It is "a policy of sewage" we are especially anxious to find engrossing the attention of Parliament during the session upon which we have just entered. Since the days of COBBETT, Royal Speeches have counted for little. The Ministerial programme serves the purpose of a passport, and affords four gentlemen the opportunity of displaying their oratorical abilities—generally illusory, by the way,—and four practised debaters the occasion for a few empty complaints, some passing sarcasms, and a score of platitudes; but no one in or out of Parliament seriously accepts the "Speech" as a forecast of what will actually be done by the Legislature. We may, therefore, set the traditional programme aside, and, with at least the hope of a hearing, plead for the interest of Parliament in matters which, though at the moment possibly overlooked, may yet attract the notice they deserve.

Foremost among the needs of the nation are measures affecting the public health; the prevention of disease by the elimination of sources of infection; the enforcement of cleanliness and purity; the provision of a pure and abundant water-supply. This last-mentioned problem is one of intense practical interest, for which, we trust, the genius and industry of the Home Secretary will find a solution. Considering how large a part water plays in the vital processes of nutrition, it cannot be a matter of indifference that the majority of men and women dwelling in populous districts are in daily risk of being, and as a matter of fact are frequently, poisoned by drinking water polluted with sewage. It is manifestly unsafe and unreasonable to leave the supply of an article of universal consumption, as necessary as air or light, to be provided by commercial companies. The experiences of a district so close under the eye of the Legislature as Richmond might serve to illustrate the folly and peril of the present policy. If it was expedient to make the conveyance of letters and the transmission of messages by telegraph a State function, it is incomparably more important to recognise the duty of the public administrative authority in regard to water. It has been shown how by the creation of public bonds to replace the shares of the existing companies, and the compensation of certain vested interests, the rights and business of these companies might be transferred to the State without any inordinate expenditure. The growing demand for water, which, speaking roughly, has nearly doubled in the last thirty years, must in the early future necessitate the creation of new works, which the State alone can economically or successfully execute.

The working of the Public Health Act requires attention. Its complex apparatus calls for adjustment, and should be reviewed in Parliament to ensure entire success. The Local Government department stands in especial need of scrutiny. The motive power is obviously over-weighted, and the machinery labours at most points, and fails at many. The relations of the central Board with that governing the metropolitan asylums, to which we have repeatedly pointed as embarrassed, may be taken as a fair indication of the position of matters generally. In the Poor-law branch of this office the hopes kindled during the vigorous administration of Mr. HARDY have not been revived. The poor are everywhere neglected in their greatest straits, and the nuisance of habitual pauperism is masked instead of being removed.

Never was there a more pretentious effort to "put down" vice than now; perhaps seldom, if ever, have so many vicious practices and usages been suffered to go unchecked. For example, the country rings with the cry of reformers intent on eradicating the vice of drunkenness. Hand in hand with this movement goes the creation of special and covert facilities for tippling, by the system of grocers' licences. With one hand authority closes the door of public-houses at an early hour of the night, with the other it gives power to an ordinary tradesman to sell beer and spirits in bottle that the passion for poison may be gratified with impunity, not only by the open drunkard, but women and even children, who would not cross the threshold of a public-house. This is but a specimen of the way in which a paternal and meddling policy of legislation breaks down and defeats its own enterprise.

The Arctic Expedition, the Lunacy laws, the Coroner's Court, and many other subjects of grave and pressing concern call for Parliamentary intervention. We venture to hope the demand will not pass unheeded. It would be a grievous misfortune if, engrossed with matters of really secondary interest abroad, the urgent necessities of the people should

be neglected at home. We are disposed to look with anticipation to the practical energy already evinced by Mr. CROSS in dealing with matters of permanent, though not perhaps sensational, character. If he will only give questions involving medical elements a hearing from the medical standpoint, the public and the profession will be the gainers, and confidence spring up where, it must be confessed, there has hitherto been chiefly occasion for distrust. If State Medicine is to be recognised as a tributary branch of the science of public politics, the State must no longer studiously ignore medicine or turn contemptuously away from its professors.

THE Admiralty Committee on Scurvy has not yet concluded its inquiry. We reserve minute examination of the proceedings until the report shall have been formally presented. Great pains have been taken to investigate the causes of scurvy. We do not wish to treat a question so momentous with levity, but we cannot help observing that Sir WILFRID LAWSON'S humorous remark to the good people who devote so much labour to the discovery of the causes of drunkenness, that "the cause of drunkenness is drinking," is not more obvious in its simple truth than that the cause of scurvy is the privation of vegetable food. It is partial starvation, scarcely less certain in its effects than is absolute starvation. A robust faith or a weak credulity may believe in the story of LOUISE LATEAU or the Welsh fasting-girl, or in any other miraculous suspension of the laws of nature; but the more catholic faith in the unity of creation and in the fixity of design of the Creator, which those who devote themselves to the study of nature must acquire, is proof against this vulgar form of scepticism. To live, man must eat; and, being omnivorous, to preserve health, he must have a varied diet. This is the condition of his existence, whether his lot be cast in the torrid, the temperate, or the frigid zone; on land, or sea, or ice. The history of mankind teaches one stern lesson. Under every variety of circumstances, under exposure to heat or cold, to fatigue or indolence, feeding on fresh meat or salted, yet lacking vegetables, he will sooner or later get scurvy.

Knowing all this, we might, on learning that scurvy had broken out in the sledge-parties of the recent Arctic Expedition, have safely predicated that the supply of vegetable food, or its most effective representative, lime-juice, was deficient. And so it turns out on strict inquiry. Upon this point there is no room for doubt. Nor can any blame attach to the medical advisers of the expedition. They had no misgiving, no hesitation in their faith in one of the best-attested facts in medicine. Accordingly, we find Sir ALEXANDER ARMSTRONG, who to a superior intelligence adds the weight of actual experience in Arctic service, laying down as essential that lime-juice should be taken by the sledge-parties; that Dr. COPPINGER, discussing with Captain NARES the provisioning of the sledge-parties when about to start, again urged that a supply of lime-juice should be included. And then we find that the advice was deliberately set aside by the commander of the expedition. It is hard to censure a leader of such conspicuous merit. With all the cares of a great enterprise weighing upon him, forced to adjust as accurately as could be the burden thrown upon the men to their strength, and having fixed the limit of weight which they could drag over the ice, he committed the grievous error of including in the weight things that could have been spared without much detriment, and of omitting that one thing which could not be omitted without certain injury. What might have been expected followed. Exposed to increased hardship and fatigue, wanting more anti-scorbutic food, the men were put upon less, and thus, within a few days of leaving the ships, scurvy quickly and surely sapped their strength, and compelled them to turn back. So far from there being anything exceptional in this outbreak, it is simply another illustration to be added to the long, sad, unvarying history of this terrible scourge. For scourge it is. It is the inevitable penalty for neglect of the teachings of medical science. No disease—not even small-pox—can be so surely prevented. It has justly been held as one of the greatest triumphs of medicine that scurvy has been for many years all but unknown in the British Navy. We cannot look upon this outbreak, which has afflicted a chosen band of the bravest of our men, baffling them in an enterprise exciting their highest hopes, and watched with the deepest interest and sympathy by their countrymen, without humiliation.

With every desire to do justice to his great merits, we repeat that upon Sir GEORGE NARES must rest the responsibility of this catastrophe. This much he frankly acknowledges. This experience will, it may be hoped, bear at least this fruit—that the medical officer shall in future have authority in the matter of diet, and not simply be called upon to give advice.

The Committee have not terminated their labours. Although convinced that nothing can be elicited to shake the main conclusion that this outbreak of scurvy forms no exception to the law of dependence upon privation of vegetable food, we do not desire even to hint that this investigation is superfluous. From time to time even the best acquired facts must be reiterated and enforced in order to keep their hold upon mankind. And we believe that under this new inquiry, ably conducted as it is, facts of great interest will come out, and pernicious errors will be exploded. We shall examine with care the evidence of Mr. BUSK, Dr. BARNES, and Mr. LEACH, who represent the experience of the *Dreadnought* Hospital; of Drs. GUY, PAVY, and BUZZARD, and others, who bring knowledge from different sources. We do not doubt that the whole matter will be thoroughly sifted, and hope that a great truth, long recognised by the medical profession, will be set forth with such authority that it will henceforth be accepted as an unquestionable gain to human knowledge, bearing health in proportion to the faithfulness with which it shall be applied.

THE present position of medical testimony in Courts of Law and Justice is eminently unsatisfactory. Medical witnesses do not receive the respect, and their evidence is not accorded the weight, their character and the importance of their opinions demand. To some extent, doubtless, this is explained by the inadequate recognition which Medicine, as a science and a profession, has obtained at the hands of the State. It must, however, be acknowledged that professional witnesses are not wholly free from responsibility in the

matter. The testimony offered is too often deficient in those qualities which are essential to give skilled evidence a claim to confidence, and it is not submitted in a manner calculated to inspire the court with respect. The fault is threefold. 1. The practice of examining and cross-examining medical witnesses by lay interrogators is not likely either to advance the interests of justice or elicit the full scientific truth. If it did not commonly happen that the court is as ignorant as counsel engaged in a case, the dropped link in a chain of evidence, or some suppressed term in the argument, would be discovered, where now justice fails, and testimony good in itself, but awkwardly, and therefore defectively, presented, is discredited. Making full allowance for the preliminary condition of our English system, in which Justice never searches for the truth, but blindly balances the evidence placed in her scales, this is not desirable. 2. It must be confessed medical jurisprudence and the true method of giving evidence is grievously neglected. It is forgotten that while ordinary witnesses speaking to simple questions of fact need no training, the delivery of scientific opinions requires, first, extensive and accurate knowledge, and, second, a trained judgment to discern and declare where knowledge ends and conjecture begins. It is vain to suppose the power of diagnosis will carry a witness creditably through the ordeal of a forensic scrutiny as to the grounds of his opinion. Medical men trust to their general knowledge, and when they find themselves in the witness-box, are confounded, or at best confused, by the sudden demand to explain points they have taken for granted. We question whether, in lectures on medical jurisprudence, sufficient stress is laid on the manner of giving evidence. There can be no room to doubt the general lack of tact evinced by medical witnesses. 3. The practice of giving *ex parte* evidence in support of particular views propounded by opposing parties to a suit, or for the Crown or the accused in a criminal cause, is disastrous. It is to this aspect of the subject we are desirous of directing serious attention.

The ethical question involved is of exceeding gravity. When a medical man allows himself to be "retained" in a case he subordinates science to the exigencies of personal interest. The only question that remains is how far he may be required to go on the way that deflects from the plain path of truth. Probably no practitioner places himself in this position without first convincing, or persuading, himself that the side which has engaged his services is right. As a matter of business, however, he is easily convinced, and, once pledged, it is a facile process to see the case from the standpoint assumed. We have no hesitation in asserting that the practice of accepting fees for evidence strikes at the root of high professional morality. Whether the case be one of alleged and disputed lunacy, whether it turn on the capacity of a testator, the legitimacy of a marriage, the circumstance of a child having been born alive, or the competency of a party to perform a marriage contract, *ex parte* testimony is exposed to so many perils in conception and delivery that it is unworthy the confidence of a court of justice, and unbefitting the status and character of a scientist speaking to matters of knowledge and truth. Science will not brook profane handling. All truth is sacred, natural not less than any other variety. To use truth for party or personal purposes is an offence against the fundamental canons of morality; to pledge oneself to do this by accepting a retaining fee as witness on a side is to undertake a *rôle* as incompatible with the obligations of honesty as it is fatal to the exercise of manly independence. The barrister accepts a brief to place the facts of a case in the light most favourable to his client. He speaks in the name of the person for whom he is retained, whether plaintiff or defendant, prosecutor or accused. The medical witness speaks in the name of science. If he warps or twists the truths of science to suit a side, he betrays the interests, and distorts the character, of the truth he represents. He is sworn to "speak the truth, the whole truth, and nothing but the truth": to undertake this task in the interests of a party is to assume a responsibility against which common sense rebels.

It is expedient to press these considerations on the profession, and especially on men engaged in lines of practice that offer perpetual inducements to undertake work which in the doing must needs debase the perceptive faculties, and weaken the moral sense. It is especially needful that those to whom the public look for guiding opinions on cases which may or may not be carried into courts of law should be animated by the highest view of that unscrupulous accuracy which fidelity to science enjoins. This is, unfortunately, an intensely materialistic age, in which obligations arising outside the sphere of man's grosser senses are instantly repudiated. In this matter, however, the appeal may be restricted to the level of an intelligence which believes nothing it cannot see. Enough is known of natural truth to convince any reflective mind of its unfitness to answer the purpose of a prop for any pigmy structure which a litigant may find it convenient to erect. Common prudence would suggest that wise men should not seek to employ it in a service for which it is manifestly unsuitable. We shall be told truth is always on one side of a dispute when interests involving a question of science are opposed. On that proposition we are prepared to join issue. The proof we will submit at another opportunity. For the present, suffice it to ask earnest consideration for a subject which affects many consciences, and should concern all.

THE Registrar-General's Quarterly Return relating to the last three months of 1876 possesses interest beyond that which attaches to the state of the public health during that quarter. It affords the means of judging of the sanitary condition of England and Wales during the entire year, so far as it may be judged from a consideration of the year's mortality statistics, and their comparison with similar figures for recent years.

The high temperature and abundant rains which prevailed during the three months ending December last appear to have been on the whole favourable to the public health. Notwithstanding the fatal prevalence of scarlet fever and local epidemics of small-pox in London and in some of the larger towns of Lancashire, the annual death-rate was only 20·0 per 1000, and nearly 2 per 1000 below the average rate in the corresponding quarter of the thirty-eight years 1838–76—the entire period during which the civil registration of deaths has been in operation. The death-rate last quarter

was below the average at each group of ages, but most conspicuously so among persons aged upwards of sixty years, to whom a mild winter is especially beneficent. The rate of mortality among those aged sixty years and upwards was equal to 65·4 per 1000 persons estimated to be living at these ages, one of the lowest death-rates on record for the last three months of the year. In the corresponding periods of the six years 1870–5 the lowest rate among these elderly persons was 68·7 in 1872. The zymotic death-rate was equal to 2·7 per 1000 persons living at all ages, and was 1 per 1000 lower than the average rate from these diseases in the six preceding corresponding quarters. This low zymotic death-rate was the more remarkable from the widespread prevalence of scarlet fever, which caused no less than 5429 deaths in the three months. It is pointed out that the zymotic death-rate in the quarter ranged from less than 1 per 1000 in Suffolk to 4·2 per 1000 in Lancashire, which fully maintains its unenviable notoriety as the unhealthiest county in England.

The facts bearing upon the fatality of small-pox during the quarter are not unnaturally full of interest at the present time. During the last three months of 1875 only 149 fatal cases of small-pox were registered throughout England and Wales; so few deaths from small-pox, in three months, was without precedent so far back as trustworthy records exist. Through the four quarters of 1876, however, the deaths from this disease steadily increased to 262, 501, 543, and 1112 respectively. With reference to the 1112 small-pox deaths in the quarter ending December last, a number which slightly exceeded that recorded during the year 1875, it appears that 592 occurred in London, 399 in Lancashire, and but 121 in the rest of England and Wales; the annual death-rate from the disease, which was equal to 681 per million persons living in London, and 515 in Lancashire, did not average more than 27 in all other parts of England and Wales. Indeed, not a single death from small-pox was registered in seventeen of the English counties, or in fifty-one of the seventy largest towns. This affords abundant proof that the small-pox epidemic at the end of 1876 was mainly confined to three centres of infection, and was far from having become general. Having due regard to population, the fatality of small-pox was considerably greater during last quarter in Liverpool, in Manchester, and in Salford, than in London. Out of these three large centres of infection, 21 fatal cases occurred in Burnley, 14 in Preston, 14 in Chatham, and 27 in the suburban districts around London.

The fatality of diarrhœa, fever, measles, and whooping-cough was considerably below the average for recent corresponding quarters. The deaths from diphtheria, however, showed a slight excess in sympathy with the fatal prevalence of scarlet fever.

As regards the vital statistics for the entire year, the Registrar-General remarks that in each of its four quarters the birth-rate was above, and the death-rate below, the average rates in the corresponding period of the ten preceding years. In the United Kingdom the excess of births over deaths in the year was very little short of half a million. In England and Wales the birth-rate was 36·5, and the death-rate 21·0 per 1000; the birth-rate was more than 1 per 1000 above and the death-rate more than 1 per 1000 below the previous ten years' average rates. The death-rate was lower than in any year since 1856. Infant mortality and the death-rate among elderly persons were especially below the average. The death-rate from the seven principal zymotic diseases was equal to 3·0 per 1000, against 3·6 and 3·3 in 1874 and 1875. There can be little doubt that during the last two or three years much useful sanitary work has been done in England and Wales, and that the science of public hygiene has made real progress, and is now beginning to be better understood and appreciated. It would, nevertheless, be unsafe to attempt to decide as to the extent to which sanitary progress may be credited with the decline of the national death-rate in 1876. There is, however, one remarkable feature in the mortality statistics of the year which does, as the Registrar-General points out, undoubtedly afford satisfactory evidence of sanitary progress. The annual death-rate from fever, including typhus, enteric, and simple fevers, has steadily declined during the last seven years from 80 to 43 per 100,000 persons living; while in the preceding five years 1865–69 it had averaged 93. Thus, while aggregation to town centres and the pollution of rivers have increased at an almost unprecedented rate, the causation of typhus and enteric fever has become better understood and more successfully guarded against. This at least may be pointed to as a preliminary triumph of sanitation.

Annotations.

"Ne quid nimis."

ART IN HOSPITALS.

THIS by no means unimportant question has of late been discussed in the daily papers, and the results of the discussion will be, let us hope, to induce persons of artistic taste to pay some attention to the decorative treatment of sick wards.

The decoration of sick wards must be carried out with judgment, and with a constant regard to the purposes for which the apartment has been constructed. "Dust and Disease" has been a constant heading in the columns of newspapers since Professor Tyndall popularised knowledge which had till then been familiar only in scientific circles. It may be laid down as an axiom that anything which harbours dust had better be excluded from a sick ward, and especially from a surgical ward. Hospital dust, as is well known, is composed largely of organic matters; it burns with an organic smell, and under the microscope it is seen to consist in part of epidermic scales and cells of epithelium. The epidermic particles from a patient with scarlet fever will convey the disease, and in our present state of knowledge it is right to assume that erysipelas and other hospital diseases may be conveyed in the same way. It is not too much to say that it is conceivable that a puff of wind, by disturbing a dusty picture-frame, may shake death into the wounds of a patient lying underneath.

We think that not only should projecting picture-frames be excluded from hospital wards, but that projecting ledges, whether to doors or cornices, should likewise be tabooed. Heavy pieces of furniture, such as clothes-presses and "dressers," behind which dust accumulates, should also be excluded. As for bric-à-brac and china arranged on brackets and shelves, they seem to us to be absolutely inadmissible in the wards of a general hospital in which cases of open wounds and of zymotic disease are treated. In spite of these

remarks, however, we hold that the *suitable* decoration of a sick ward is of great importance, and we believe that by pleasing the eye the mind may be, to some extent, diverted from serious troubles.

There is no reason why all the windows in a hospital should be rectangular repetitions of each other; why the bed-rails should be pauper-like and mean; why the walls should be of whitewashed brick; and the furniture without artistic merit of any kind. Can no one help us to pretty windows with a little stained glass, to pretty chairs, to well-designed tables, beds with a dash of elegance, and counterpanes of chaste design and colouring? The screens which are in constant demand in hospitals need not all be of American leather-cloth. Chimney-pieces and fireplaces may be made picturesque and cheerful, and jugs and basins modelled on Grecian patterns are not more expensive than the ugly things in general use.

As for the walls, they must be painted on the flat, and a very little ingenuity will give us much cheerfulness at a small expense. Glazed tiles and pictures let in the wall will also be acceptable, and we would suggest that painted panels to the doors will give a gleam of refinement and an agreeable patch of colour.

THE CRUSADE AGAINST DRUNKENNESS.

THERE can be no doubt that the efforts now being made by all classes in the country to repress what we fear must be called our national vice are as earnest as they are widespread. There is one aspect of the question, however, which has hitherto received but slight attention, although worthy of much. It is necessary, so it seems to us, to teach people not only what *not* to drink, but what they *may* drink and *ought* to drink. A religious missionary not only tries to wean the savage from the barbarous superstitions bequeathed to him by his ancestors, but offers him something better in exchange; and, indeed, there can be little doubt that success only follows the efforts of the missionary when he is able to demonstrate that a distinct gain will follow on the abandonment of the old faith and the reception of the new. The unequal success of missionaries in different countries depends very much upon the relative merits of the religions which are brought, as it were, into antagonism with each other.

The missionaries of temperance in this country have hitherto contented themselves by preaching "Thou shalt not drink alcohol," and with this exhortation to a negation they have rested content. Surely there is much to be done in a positive way, and our belief is that more good will be effected by alluring the public towards pleasant and wholesome non-alcoholic beverages than by merely inveighing against the beverages which exist. This country is noted for its beer; and almost, as it would seem, as a compensation for the want of the vine, our soil and climate produce barley and hops in great perfection. Good English beer, if not too strong, and if taken only with meals and in moderate quantity, is, it is allowed on all hands, a wholesome drink. Can as much be said for the so-called teetotal drinks which are available at present for the masses? Our water is for the most part merely diluted sewage; public-house tea and public-house coffee (even that provided for travellers at railway stations) are abominable—the one is a hot solution of tannin, and the other is too often an astringent rough decoction flavoured with chicory and smoke; as for lemonade, gingerade, syrups-and-water, and similar inventions, they merely cloy the palate and induce flatulence.

Why should not coffee, the very prince of all beverages, be as good in England as in France? The Government and the public are too prone, we think, to look upon a "public-house" only as a place for the sale of intoxicating drinks, and too little is done to encourage publicans to deal in non-alcoholic drinks, although we believe the profit arising from the sale of the latter to be scarcely less than that which belongs to the ordinary "liquor traffic." Would it not, for example, be a good plan to allow the public-houses in Ireland and Scotland to be open on a Sunday for the sale of non-intoxicating drink? In this way, perhaps, the publicans would learn that their trade profits are not limited to alcohol, and the public would be tempted during their Sunday rambles to learn a lesson which might serve them on a week-day too.

It has been the custom in country districts to offer a small prize occasionally to the woman who can produce the best loaf of bread or the best sample of potatoes boiled ready for the table, but we have never yet heard of a prize for the best cup of coffee, and we throw this out as a hint to country gentlemen interested in the temperance cause.

When the labouring classes can procure a decent cup of tea or coffee with the same facility that they can now get a decent glass of beer we may expect to see a genuine growth of temperate habits, and the temperance agitators must bear in mind that it is not only necessary to take away our beer but still more necessary to give us something in return. We wish we could see some of the enthusiasm which is now lavished on the prohibition of that which is noxious bestowed on the encouragement of that which is good, such as the prevention of pollution of rivers and the adequate water-supply of our great cities.

NORWICH HOSPITAL.

AT an extraordinary meeting of the governors of the Norfolk and Norwich Hospital held last Saturday, the Earl of Leicester in the chair, it was resolved to pull down the present building and construct an entirely new hospital for 200 patients, at an estimated cost of £32,000. An alternative scheme for retaining and improving the present buildings was also brought before the governors, but it only found six supporters. We congratulate the governors on the determination they have arrived at. Already they have £24,600 of the sum required in hand, and there can be no doubt that the public will willingly subscribe the remaining £8000, or if need be £15,000, now that a definite conclusion has been arrived at. Indeed, at the meeting, the chairman (the Earl of Leicester) announced that the Prince of Wales had promised that, if the erection of an entirely new hospital was decided on, he would give 200 guineas in addition to his former subscription; and he also added that the Princess of Wales would give 100 guineas for the same object. After the meeting, additional subscriptions to the amount of £3325 were announced. That the governors have come to the decision they have is no doubt in great measure owing to the earnest and able advocacy of Mr. Cadge and Dr. Michael Beverley. The former gentleman, at the meeting on Saturday, made a most earnest and forcible address on the wisdom of erecting an entirely new hospital, and the folly of endeavouring to patch up and enlarge the old one. Mr. Cadge quoted the dictum of Mr. Erichsen, "that new buildings added on to old hospitals often become more unhealthy than the original building." Mr. Cadge advised the governors, if they wished to see what a really good ward was like, to go to Cambridge and visit Addenbrooke's Hospital, which twenty years ago was nearly demolished and rebuilt, very much at the instigation of Prof. Humphry, one of the surgeons there. At that hospital they would see wards in a tolerable degree of perfection. Mr. Cadge observed that Prof. Humphry, who was an old pupil at the Norwich Hospital, had revisited the

building last week; before he did so, his reminiscences of the hospital made him consider it by no means a bad structure; but as he went along through the wards, he expressed surprise at finding how small the wards were, and frequently stated his opinion that the old hospital was not worth preserving at such a great cost. Prof. Humphry further said, "Although we have spent so much money and got a good hospital in Addenbrooke's, I am sorry I did not advise the governors, when they made the alterations, to build an entirely new hospital, for it would have been cheaper as well as better."

CASES OF RETARDED PUTREFACTION AND PROLONGED RIGOR MORTIS.

M. TARCHINI-BONFANTI records two remarkable cases of retarded putrefaction and prolonged rigor mortis that fell under his observation in Milan. Two women were found with their heads battered in, and who had died with profuse hæmorrhage. Rigor mortis was fully developed, and little or no putrefaction, and he and several other surgeons and physicians at first believed that not more than thirty-six hours could have elapsed since death had taken place. On consideration, however, it occurred to him that the temperature had been persistently low (50° to 54° Fahr.), the atmosphere dry, the air in the rooms had been but little changed in consequence of the windows and doors being closed, and the amount of light admitted was small. The bodies were lying on a Dutch-tiled floor, were extremely exsanguine, contained very little food in the digestive tract, and the death had evidently been sudden. The mistress was old and tolerably well-nourished, the servant thin and young. From these circumstances, all of which were favourable to the prolongation of the state of rigor mortis and the prevention of putrefaction, M. Tarchini-Bonfanti arrived at the conclusion that a longer period than thirty-six hours had probably elapsed, and they might have remained in the condition in which they were found for seventy-two hours, or three days, or even longer. On the trial of the assassin it proved that death in the above cases had taken place four days and a half prior to the discovery of the bodies. The cases are important from a medico-legal point of view as showing the caution that should be exercised in pronouncing upon the date of death from the presence of rigor mortis and the absence of putrefaction.

THE RIGHT TO PRACTISE ON FOREIGN DIPLOMAS.

IT is satisfactory to know that we shall soon have the very highest opinion, after mature deliberation, on the right of persons to practise in England on the strength of foreign diplomas. The question is raised in the Queen's Bench Division of the Supreme Court of Judicature, before the Lord Chief Justice and Mr. Justice Mellor, in connexion with a case in which the defendant does not profess to have any other diploma than one from the "Eclectic Medical College, Pennsylvania," the quarter from which "degrees" have issued in shoals. Mr. Grain, on the part of the defendant, Thornton, contended that the conviction by the magistrates could not be sustained. It was, he urged, on a charge of falsely and wilfully representing that he was recognised by our law as a practitioner in medicine; "whereas the proof, on the contrary, showed that he had only represented himself as a foreign practitioner; for such, he urged, was the plain and obvious meaning of the words over or upon his door. And as to the proof of the diplomas, he was prepared with proof of the signatures to these documents, which, he said (in a case he cited), had been held to be sufficient evidence of the authenticity of such documents." The Lord Chief Justice said it was an important question, whether a person representing himself as a foreign doctor or licentiate of medicine, and practising in this country as such—that is, as a foreign doctor—was liable to be convicted upon such a charge as this. It was fit, he said, that such a question should be decided upon a further statement of the facts; and the case was sent back for that purpose. The profession will await with the deepest interest the decision of the Court on this question. It is to be hoped that the real nature of the alleged diplomas, the mode in which they are obtained, and the respect paid to them in the United States, will be among the facts; a fuller statement of which the Lord Chief Justice desires, though they may not be of the essence of the question which he has to decide.

RELATIONSHIP OF ACTING AND CONSULTING SURGEONS.

AT the annual meeting of the Governors of the Peterborough Infirmary, held on Friday, the 2nd instant, an important question was raised respecting the relations existing between the acting and the consulting surgeons. It appears that at this infirmary, the acting surgeon has the practical management of all the surgical cases, performing all the operations, and personally superintending all the treatment. The two consulting surgeons, who are gentlemen engaged in private practice in the town, are more or less frequently requested to confer on the more serious cases, but are not allowed beyond this to take any active part in the treatment of the patients, not even when those patients may have been under their care before entering the infirmary. This has, for some years past, been a source of annoyance, not only to the consulting surgeons and other practitioners in the city, but also to some patients who, having for a time been treated at home by one or other of the consulting surgeons, have, for some reason or another, been induced to seek admission into the infirmary, expecting that they would still continue under the care of their own medical adviser. The result has been that the consulting surgeons have of late hesitated to send their cases into the infirmary, because by so doing they lose them altogether. At the meeting referred to, one of the governors, Mr. Taylor, drew attention to this anomaly, and suggested that the consulting surgeons should be allowed to take a more active part in the major operations, especially on those who were previously their own patients. Dr. Cane, who was the only consulting surgeon present, complained that quite recently one of his patients having decided to have an operation performed, afterwards determined to go into the infirmary, where he would be at less expense, but at the same time have Dr. Cane's services. Under that impression he went into the infirmary, and was at once handed over to Dr. Walker. Without wishing to prejudice the position of Dr. Walker, a more equable division of labour and responsibility certainly seems not only reasonable but desirable.

A CENTENARIAN.

IN one case, at any rate, the evidence seems to be of an indubitable character that a lady at the time of her decease wanted but three months of being 104 years of age. Both according to the parish register and the record by her father in the family Bible, the late Lady Smith, of Lowestoft, Suffolk, was born on the 11th of May, 1773—that is, two years before the outbreak of the American War. Lady Smith possessed a marvellous constitution and a vigorous, keen, and clear intellect, united with fresh and lively sympathies and affections. She resided for 28 years of her widowhood in High-street Lowestoft, and was, of course, well known to the residents of that place, to whom she was the object of no little interest and wonder. Upon the occasion of the centenary anniversary of her birth, Lady Smith gave a dinner to all the aged poor of the neighbourhood. She seems scarcely to have known what illness was, and to have illustrated in her person what it really

was to have "a sound mind in a sound body." Everything seems to have been so perfectly balanced that the adjustment of the physical, mental, and moral natures was, from a sanitarian's point of view, complete and perfect. At the age of twenty-three she was married to Sir James Edward Smith, who was then a young physician of limited means, but became the founder and first President of the Linnæan Society. Their house at Norwich became the centre of the literary and scientific society which then distinguished that ancient city. He died in 1828, so that Lady Smith, after thirty-two years of wedlock, lived in widowhood for nearly half a century; for twenty-eight of those years she resided in the house built by her father in the High-street of Lowestoft. Till within the last two or three years she had preserved almost all her teeth, and her eyesight was good enough to enable her to read reports of speeches in *The Times*. Her hearing remained almost unimpaired to the very end; and till her eyesight began to fail, her handwriting was clear and legible.

THE QUEEN v. HATTERY.

A RECENT decision in the case of "The Queen v. Hattery" in the Court for the consideration of Crown Cases Reserved is of some significance and importance to medical jurists, and, as it supports and extends a somewhat similar judgment in a former case of "The Queen v. Case," must be looked upon as final. The prosecutrix, who was subject to fits, was taken by her mother to consult the prisoner, who kept an open stall in Halifax market, at which he professed to give medical and surgical advice. After an examination in an adjoining public-house, they were told by the prisoner that a surgical operation was necessary for her cure, and he explained its nature in metaphorical language, unintelligible to both mother and daughter. With the mother's permission, he then led the girl, who was nineteen years of age, into the next room under the pretence of performing a surgical operation, and committed a rape on her. The girl made but a feeble resistance, submitting solely because she believed that he was only treating her medically for the cure of her illness and fits. The question raised on the appeal was whether such submission in law constituted consent. The Court unanimously held that as she had no idea that he intended to commit an offence against her chastity there was no consent on her part, and the conviction of the prisoner was affirmed. In the instance quoted as a precedent the girl was only fourteen years of age, and might reasonably be supposed to have been ignorant of the nature of the act which was perpetrated; but that a girl of nineteen should be so simple as not to have understood what was being done, and not to have resisted, because she was under the idea of its being a surgical operation, is certainly a most remarkable display of ignorance. No evidence was given of any mental defect, such as imbecility or idiocy. Consent, therefore, if obtained by a fraudulent deception of this kind, does not excuse the crime; and such cases, according to this finding, are placed in the same category as those in which the woman is powerless from terror, unconsciousness, or exhaustion, or submits under threat of death.

SUFFOCATION BY BRAN.

AN extraordinary case reported in the papers on Tuesday last, of suffocation by bran, seems to merit some attention, both on account of the rarity of the mode of death and the peculiar features of the case. We are indebted to one of the house-surgeons at St. Thomas's Hospital for the facts of the case. It appears that a boy fourteen years of age, of strong muscular build, was employed at a flour-mill, where it was his duty to shovel down "pollard" from a heap on the first-floor through a shoot into sacks on the ground-floor. The loft or floor on which he worked communicated by a steep stair or ladder with the ground-floor below. Only one man was at work below, and none with the lad above. On Friday afternoon the boy was taken to St. Thomas's Hospital, livid and apparently moribund, by a man, not the one who worked in the mill, but a neighbour, who said that he found the boy lying on the floor of the mill, blue in the face. On admission, his head, face, and clothes were covered with bran, and his mouth and nostrils filled with it. Tracheotomy was immediately performed by the house-surgeon, Dr. Edmunds, but too late to be of any avail. At the post-mortem, the mouth, upper part of pharynx, larynx, trachea, and bronchi were found to be completely filled by a firm mass of bran, which had evidently been inhaled with great force, and probably by repeated violent inspirations. The appearances were such as to lead those who saw them to the conclusion that the head must have been immersed in the bran for some seconds or perhaps longer, either during a state of unconsciousness, or in such a way that extrication was impossible. The evidence, however, as to what actually took place seems to have been contradictory. It was stated at the inquest by the man working below that he saw the boy walk slowly down the steps, blue in the face, and that he fell when he got to the bottom; that he himself called to the man who was working near, and sent the boy with the latter to the hospital. If this were the case, it would seem to negative the idea of the lad having fallen in in a state of unconsciousness; and, from some circumstances in the case and the contradictory evidence, it seemed at least possible that the boy might have fallen or been pushed in through "larking." The coroner and his jury appear, from the report in *The Times*, to have adopted the view that the boy was eating the pollard—a view utterly inconsistent, in our opinion, with the fact that the stomach was full of recently ingested food, and that there was no bran in the œsophagus or stomach. The verdict of "Accidental death" returned by the jury was at least unjustified by the evidence adduced at the inquest, the utmost warranted by the stated facts being a verdict of "Death from suffocation by bran," leaving the method doubtful. If the boy did really fall into it, it is at least a question whether there were proper means of security against such an accident.

THE INTERNATIONAL RECOGNITION OF DIPLOMAS.

THE letter of our Paris correspondent in THE LANCET of January 27th does not abate our anxiety on the above important question. The measure now before the Chamber of French Deputies is exceedingly illiberal, and, if enacted, will absolutely prevent English physicians and surgeons practising in France. More lamentable still, our correspondent tells us that while the leading medical men of France fully realise the impolicy and injustice of the proposed law, the professional men who hold seats in the Chamber seem resolved to push the Bill through at all hazards. These gentlemen are unusually numerous, and are radical to the last degree. We must earnestly appeal to them whether they are acting up to their Liberal principles in supporting this measure. As members of the medical profession, they should be more liberal, in this matter at least, than even their political principles might require. It will be a simple scandal to both the profession and to Liberal principles if a Republican Assembly, instigated by medical men, abolish a liberal law, which our correspondent shows is not abused by the Government of France, and which works well. It is satisfactory to know that the question is the subject of correspondence between Lord Lyons and the Foreign Office, and of conversation

between Lord Lyons and the French Ministers; and that the French Government has determined to offer a strenuous opposition to the Bill. All honour to the French Government; but, as the oldest medical journal in England, we appeal to the medical members of the Assembly to withhold their support from this illiberal and retrogressive measure, and to demand such a mutual recognition of the diplomas of each country as will at once secure the respectability of the profession and redound to its liberality. Our own Medical Council should meet early. This is far too serious a question to be left to the President or any half-dozen members of the Council who may happen to constitute the Executive Committee; the more so as the latest note of the Council, at its last sitting, does not at all meet the necessities of the case, nor at all represent the liberality of feeling amongst English medical men or statesmen.

PHYSICAL TRAINING IN AMERICA.

CONTESTS in wrestling and sparring with gloves have been lately prohibited in certain parts of the United States. It is interesting to observe to what little extent sport, the love of which in all its phases is generally supposed to be inherent in the Anglo-Saxon race, has been cultivated in America. Until very recently the people were without a popular athletic exercise of any kind, with the exception of that pastime which has little to recommend it besides its harmlessness, called "base-ball," and what little rowing was recorded was performed by professional oarsmen. Within the last few years the Universities of Harvard and Yale, by emulating the example of Oxford and Cambridge, have brought rowing into some degree of repute, but it cannot be said that this form of athleticism flourishes yet in any way there as it does here. As for hunting and cricket it is improbable that they will ever become features of the national life. Why is it that sport and athleticism are not more popular among a people of our own stock? Climatic influences cannot have much to do with it, for the Englishman, whether in the tropics or the Arctic circle, in the plains of Hindostan or the wilds of Canada, pursues with zest the games so intimately associated with the growth of his boyhood and early manhood. The reason for what often amounts to actual repugnance against exercise of any sort whatever among our cousins without doubt depends on a defective system of education which does little or nothing to encourage the pursuit of rational sports, or foster the development of the bodily powers, without which it is impossible that the individual can be perfectly healthy.

ACTION OF DRUGS ON THE BILIARY SECRETION.

IN a memoir, which is a continuation of a previous paper on the action of various drugs on the biliary secretion contained in the *Journal of Anatomy and Physiology*, Prof. Rutherford and M. Vignal give the results of a series of experiments they have made on the cholagogue action of euonymin, sanguinarin, iridin, leptandrin, ipecacuanha, colocynth, and jalap. The four first-named drugs are rarely, if ever, prescribed in this country; but it may be observed that they all stimulate the liver, the first three powerfully, the last, however, only feebly. The animals used were invariably dogs, to which a full meal of flesh had been given at 4 P.M., the experiment commencing at nine the following morning. A small dose of curara was subcutaneously injected to prevent muscular movements. Artificial respiration was maintained; a glass cannula was inserted into the common bile-duct, the cystic duct was clamped, the bile secretion was collected in a glass vessel, and its quantity recorded every fifteen minutes. Each experiment lasted a whole day, and the substance employed was injected into the duodenum. The results of the experiments with ipecacuanha were that sixty grains, mixed with a little bile, and inserted into the duodenum, powerfully stimulated the liver. Even three grains had an effect on a dog weighing 15 lb. The bile secreted was of normal composition as regards the biliary matter proper. No purgative effect was produced, but there was an increased secretion of mucus in the small intestine. The composition of the bile did not afford any evidence of an increased secretion of mucus having taken place from the glands of the bile-ducts. It is, therefore, certain that this substance has the power of stimulating the *secreting* apparatus of the liver. The results of the experiments with colocynth showed that this substance is an hepatic stimulant of considerable power, rendering the bile more watery, but, nevertheless, increasing the secretion of biliary matter. It is also a powerful stimulant of the intestinal glands. Lastly, in regard to jalap, the experiments showed that it is an hepatic stimulant of considerable power. It renders the bile more watery, but at the same time increases the secretion of biliary matter. Its effect on the liver is, however, far less notable than its effects on the intestinal glands. Its hydrogogue cathartic effects on these were fully manifested. Experiments of this kind, if fairly followed out, will, there can be no doubt, prove of infinite service in the progress of medicine. Though some exception may be taken to their being performed on dogs, and special differences may exist in consequence of the peculiar organisation of these animals, the results agree so well *inter se* that it is probable such differences do not greatly exceed those that may be met with in individuals, and the general conclusions are, it is reasonable to suppose, applicable alike to man and to dogs.

COOKERY FOR THE POOR.

SURELY cookery should be regarded as a branch of liberal education. In the highest family circles the wisdom of so treating it has been long recognised. Among the poor the subject is practically ignored. The position of matters is even worse than this. Domestic servants, trained in habits of waste and extravagance, accustomed to deal with large joints and boundless stores, carry into the households of the working classes customs and methods of management incompatible with economy anywhere, and especially out of place among the poor. The need of instruction in cooking is intensified by these and other considerations. Every girl should be inducted to the mystery of making the most of food, by preparing it for the table with the greatest skill and the least cost. It is no figure of speech to say that the value of food may be multiplied by its being properly cooked and combined. We cordially and warmly endorse the proposal that cookery shall be taught in Board-schools. The subject is so important that it might well be substituted for one of the more recondite topics of public enlightenment.

ARTISANS' DWELLINGS.

AN influential deputation waited last week upon Mr. Cross to urge before the right honourable gentleman the necessity of providing lodging for the poor who will inevitably be turned out of their homes during the progress of the projected new street from St. Martin's Church to Holborn. Mr. Cross promised to use his influence to this end with the Board of Works, in whose province rather than his own lay the duty of providing the necessary house-accommodation. In the Artisans' Dwellings Act a special clause has been inserted, making it compulsory to provide temporary dwellings pending the completion of any

scheme; and in the numerous schemes which would be considered by Parliament during the ensuing session this point would receive all the attention its importance demanded.

The Metropolitan Board of Works ought to have no difficulty of any kind in providing the necessary temporary house accommodation. On either side of Northumberland-avenue, and in many places along the Embankment, are large plots of waste land, and we think that no one would blame the Board if they were to use them for a year or so for the purpose of erecting some temporary dwellings where the poor might find a home while the new street is in progress. If the new street is made piecemeal, as it should be, it would not be necessary to turn away a very large number of persons from their homes at any one time, and the temporary erection in one of the spots we have indicated would not long remain as an eyesore to annoy a fastidious public.

REGISTRATION OF DISEASE IN BOSTON.

SOME important regulations with regard to the registration of infectious disease are now carried out in Boston, United States. Scarlet fever having been prevalent in the city for some time past the board of health have now given notice that the provisions of chapter 26 of the General Statutes will be strictly enforced. Section 47 enacts that when a householder knows that a person within his family is taken ill of any disease dangerous to the public health he shall immediately give notice thereof to the sanitary authority of the locality in which he dwells. If he refuses or neglects to give such notice he shall forfeit a sum not exceeding 100 dollars. Under section 48 a physician is compelled to report the existence of any case of infectious disease which may come under his notice, failing which he will be mulcted in penalties in a sum of not less than 50 dollars for each offence. It is also ordered that no child from any family in which a case of scarlet fever has occurred shall without a permit from the board of health attend a school until the expiration of four weeks from the commencement of the last case in such a family. That this condition has been complied with must be certified by a physician or some responsible member of the family, and the certificate is to be presented to the head of the school before the child is admitted. Stringent regulations such as these must soon stamp out scarlet fever in Boston. Section 48 deals with a difficulty towards the solution of which some effort must be speedily made in this country.

RAMSGATE.

AT a meeting of the Ramsgate Local Board held January 23rd, the sum of £50 was voted to Mr. Barry, the medical officer of health, as an honorarium for his valuable services during the recent outbreak of scarlet fever in the town. We heartily congratulate Mr. Barry on this acknowledgment of his labours, and especially on the kindly feeling that prompted the gift. We have already, in our Commissioner's Report on the Sanitary State of Ramsgate, complimented the Local Board on the spirit and liberality they show in dealing with sanitary matters. Last season was a most anxious time for them, and had not prompt and effectual measures been devised and executed, the outbreak of scarlet fever might have become unmanageable, and a great catastrophe have been the result. Thanks, however, to the indefatigable exertions of Mr. Barry, the disease never became formidable, and is now, we are able to report, altogether extinct. At the same meeting, it was determined to erect a temporary hospital for infectious cases, to accommodate sixteen patients, till such time as the permanent hospital for infectious diseases for the three parishes, Ramsgate, Margate, and Minster, is completed. This step, at a time when small-pox is rife throughout the country, is eminently wise, as the authorities can at once isolate any imported case. At the present moment, however, Ramsgate presents a clean bill of health, and is quite free from zymotic disease.

MIXED CHINCHONA ALKALOID.

THE efficiency of this preparation as a substitute for quinine continues to be discussed by the profession in India, and opinion appears to be much divided as to its value as a therapeutic agent. The Government of Bengal has directed its use instead of quinine in gaol and police hospitals, and in native hospitals and district dispensaries. Civil surgeons are also to be supplied with the drug for sale in their districts. The resolution prescribing its use states that these alkaloids appear to be, when judiciously administered, nearly as reliable as quinine, while their cost is only about a fourth of that of the more expensive agent. On the other hand, in the Madras Presidency the results of a somewhat extended trial of the new preparation have not been satisfactory, and its general adoption is deprecated mainly on the score of its insolubility and its tendency to produce gastric disturbance and vomiting. After reading what has been said for and against the mixed chinchona alkaloid, we are disposed to think that it is deserving of a wider and more thorough trial than it has yet received. There is no reason why its capabilities should not be tested nearer home; the experience thus gained might perhaps be of service to Indian officials.

LONDON STREET LIFE.

MANY of our readers may remember the interest excited some years ago by a serial publication remarkable alike for the vividness of its descriptions and the truthfulness of its pictorial illustrations of various classes of the London industrial poor. That work, the result of the observations of the Brothers Mayhew among the lowest orders of society in our great metropolis, and entitled "London Labour and the London Poor," has probably suggested the issue of a rather more ambitious serial, the first part of which is now before us. "Street Life in London," having as its authors Messrs. J. Thomson, F.R.G.S., and Adolphe Smith, and as its publishers Messrs. Sampson Low and Co., is adorned with permanent photographic illustrations taken from life expressly for this work. "London Nomades," "London Cabmen," and "Covent-garden Flower Women" form the subjects described in the first part, for the effective treatment of which the names of the authors are sufficient guarantee. We have, we need scarcely say, great sympathy in all efforts put forth to throw light on the haunts and ways of life, the hardships and struggles, of the lower strata of society, and cordially wish success to this new endeavour to diffuse information which is important to the sanitarian, the citizen, and the philanthropist.

PAUPER NURSES.

THE labour of paupers is never willing, seldom trustworthy. To employ them for nurses, even for the sick of their own order, is a pitiful piece of "economy," which not even parsimony can excuse. An extraordinary fatuity seems to possess boards of guardians, and they do not perceive that it is *cheap* to cure the sick as rapidly as possible. If a cure is not effected with exceeding promptness it is commonly difficult, if not impossible, to recover the very poor from their maladies. Taking, therefore, the lowest ground, wholly disregarding the obligations of humanity, and looking at the matter from "the ratepayer's standpoint," we protest against persistence in the refusal to appoint paid nurses in workhouse infirmaries, and for the care of the

aged and infirm in Poor-law institutions generally. If the central authority were anything beyond a system of official registration—more deeply dyed with the colour of red tape, and constituted with less spirit, than any other department of the administration,—the grievance of "pauper nurses" would have been long ago swept away. As it is, we hope some practical man, speaking in the name of the medical officers of workhouses, will protest in Parliament against a wrong that ought to be redressed.

MEDICAL DEFENCE ASSOCIATION.

A MEETING of the Council of the Medical Defence Association was held last week, when twenty-one new members were elected, of whom nineteen were members of a branch which has been recently formed at Accrington. It was resolved to take offices for transacting the business of the Association at 6, John-street, Bedford-row. Hitherto the meetings of the Association have generally been held at the residence of the President, Dr. Richardson. A committee, consisting of Drs. Stevenson, Thomas, Maclean, Drew, Brooks, Carpenter, Messrs. Spencer Watson, Mason, Aubin and G. Brown, was appointed to consider what steps are necessary to be taken by the Association with a view to the amendment of the Medical Act.

OFFICIAL LIBELLING.

IT is clearly inexpedient that boards of guardians should possess the power of libelling their medical officers by allowing their proceedings to transpire in the local press, thereby converting mere incoherent talk into formidable slander. It is pleasant to find the Court of Appeal has put a period to this practice, and henceforward cantankerous guardians will not be able to orate at their officers with the knowledge that privileged abuse may injure the object of their censure out of doors, where a true estimate of the value of parochial criticism may not be possible. An action for damages will now lie for the reproduction of libels uttered by guardians in the board-room, and these gentlemen will find that the commercial instinct of local newspaper proprietors deprives them of a weapon too frequently employed for personal purposes. The principle of publicity is of high value, but in its application to a conclave so small, in many senses, as a board of guardians it may be necessary to sacrifice something of general expediency to prevent the exercise of private pique.

NOXIOUS FUMES COMMISSION.

THIS Commission has just recommenced its sittings in London, under the presidency of Lord Aberdare. The South-Eastern Sanitary Association is preparing an important array of evidence in connexion with noxious factories on the banks of the Thames between Blackwall and Greenhithe, the fumes from which seriously affect the health and comfort of residents at Woolwich, Blackheath, Plumstead, and neighbouring places. This Association is a very good example of the dictum indicated in Dr. Buchanan's last annual address to the Society of Medical Officers of Health, to the effect that sanitary reforms must be enunciated by those who have found out for themselves the evils of non-compliance with the ordinary laws of health.

YELLOW FEVER.

IN consequence of the reported prevalence of this disease in the West Indies and in some parts of South America, an Order in Council, dated January 29th, has been issued, in accordance with the provisions of the Quarantine Act, 39 and 40 Vict., cap. 36, requiring that no person shall land from any vessel arriving in the United Kingdom from Cuba, or coming from or having touched at any port or place lying between longitude 35° and 60° west, and between 4° and 40° south latitude, until the state of health of all on board has been ascertained by the Customs. This order does not in any way apply to Port Sanitary Authorities, as plague and yellow fever are still, by the operation of the Quarantine Acts, under the especial care of the Commissioners of Customs. There is, however, of course practically no fear as to any importation of yellow fever at this season of the year.

THE HUNTERIAN ORATION.

WE would remind our readers that the Hunterian Oration will be delivered on Tuesday next at 3 P.M. in the theatre of the Royal College of Surgeons, by Sir James Paget. Besides a large gathering of Fellows and Members of the College, many distinguished visitors are expected to be present, including H.R.H. the Prince of Wales, H.R.H. the Duke of Cambridge, the Duke of Sutherland, the Duke of Manchester, the Marquis of Salisbury, the Bishop of London, Canon Barry, Sir Rutherford Alcock, Sir Joseph Fayrer, General Probyn, and others. After the oration the visitors, the members of the Council, and the professors and lecturers will dine with the President in the library.

SMALL-POX ITEMS.

THE St. Pancras Sanitary Authority has provided a building to be devoted solely to the reception of small-pox patients of the middle classes. The Hackney District Board of Works have made arrangements with the Highgate Hospital authorities, by which the latter will receive small-pox patients at the rate of four guineas ahead. Should the proposed accommodation fail, a temporary hospital will be erected in Hackney. In Poplar, after several buildings and sites had been inspected with a view of determining their adaptability for the purposes of a hospital, the Coborn Schools, for some time disused, have been selected, and will be immediately made ready for the reception of patients. In Mile-end the casual wards of the workhouse will be devoted to the treatment of small-pox cases; the same course has also been pursued in St. George's-in-the-East.

SIR WILLIAM FERGUSSON.

WE regret to learn that the improvement in Sir William Fergusson's condition which occurred shortly after our last issue has not been maintained, and during the last few days there has been a continuous and rather rapid decrease of strength.

MR. REDGRAVE, who is known as an energetic Inspector of Factories, has addressed a circular to the occupiers of factories and workshops in the metropolis, containing some judicious advice and suggestions as to the best means of checking the spread of small-pox. After remarking on the long-continued prevalence of the disease in the metropolis, he points out the prime importance of revaccination in the case of adults and young persons over twelve years of age as a precautionary measure, and urges employers to have all their workpeople medically examined, so that when the need of the operation is determined, immediate recourse may be had to it. Mr. Redgrave also suggests that all persons recovering from small-pox should be prevented from resuming employment until after a prescribed period. These recommendations so clearly fall in with the interest of employers themselves that we have little doubt the latter will co-operate in the work of preventing the further ravages of small-pox in London.

The Liverpool Northern Medical Society has recently had under its consideration the subject of gratuitous medical relief as afforded by the local charities. While conceding, of course, the necessity of a certain amount of such relief, the Society is of opinion that there is too much of it in Liverpool, and that apart from the interests of the profession, the indiscriminate bestowal of gratuitous medical aid fosters imposition and dishonesty, leads to a sacrifice of self-respect, and too often to improvidence and pauperism. The *Liverpool Mercury* of the 1st instant devotes a leading article to a treatment of the question, in which it pays a merited compliment to the medical men of the town. Their unpaid labours for the relief of suffering humanity from all parts of the world—it must be remembered that Liverpool is a huge seaport—can never, thinks our contemporary, be estimated, and from their own lips will never be known.

We ventured to predict in a recent issue that a contest would take place between the Local Government Board and the St. Pancras Guardians relative to the erection of a new workhouse, a step which the central authority are strongly urging the Board to take. The prediction is already verified, and it is not likely that the Guardians will do anything in the matter unless compelled. They are encouraged in their attitude of resistance by the Vestry of the district, who on the occasion of their last meeting passed a resolution expressive of their opinion that a new workhouse is not necessary, and of a hope that the Guardians "will be firm and resist to the utmost any attempt on the part of the Local Government Board to prevent a judicious system of outdoor relief being continued." Another resolution was passed to the effect that the Local Government Board be advised not to insist on the proposal being carried out by the Guardians.

A resident in Southsea has recourse to *The Times* to ventilate a grievance. He alleges that the drainage of the town is sadly defective; that very many houses are unconnected with the main drain and so drained into cesspits, the result of which in the recent wet weather has been to fill up both cesspits and drains, leaving the houses in a worse state than if not drained at all, for the sewage is forced back under them, and the consequences are described as being "most fatal." The remedy which the writer would obtain lies with the town sanitary authority, and it is not credible that this body will not take immediate action to improve the condition of the town in the particulars pointed out. Southsea will forfeit its claims to be called a health resort if such easily remediable evils are permitted to continue to the prejudice of the health and comfort of the inhabitants.

Manchester is becoming anxious as to adequacy of its future water supply, and it is understood that the Corporation are entertaining a scheme by which, in addition to the resources available at present, a further supply will be brought to the city from one of the Cumberland lakes—probably Thirlmere. The latter lake, which lies immediately under the shadow of Helvellyn, is over two miles long and has an average breadth of about a quarter of a mile. It is fed by numerous streams of pure spring water flowing from the mountains in the vicinity, and would afford practically an inexhaustible supply of water. The scheme appears most feasible and attractive, and could not fail to obtain the approval of the inhabitants of Manchester and the sanction of Parliament.

Scarlet fever of a malignant type prevails at Brownhills near Walsall, and the fatality therefrom is already great among the infant population. The authorities have wisely closed all schools in the district for the present, and a drainage scheme to remedy the gross nuisances existing is to be carried out without loss of time.

Mr. J. Hughes, medical officer of health for Carmarthen, after a hard contest with the Town Councillors, has at last succeeded in getting passed a resolution that a place shall be set apart for the reception of non-pauper cases of infectious disease. The upper floor of the Armoury of the town would not appear to be a very suitable provision for the accommodation of such cases; but we suppose it would be ungracious to complain in the face of the further resolution that "the medical officer be authorised to procure everything necessary for the proper conduct of the hospital." Several cases of typhoid fever are reported as existing in Carmarthen.

It is with much regret that we announce the death of Dr. Robert Lee, late of Savile-row, which took place at Surbiton-hill on the 6th inst. Dr. Lee obtained the M.D. Edinburgh in 1814, and was elected F.R.C.P. London in 1823. He was Fellow of the Royal Society, and was for some years obstetric physician and lecturer on midwifery at St. George's Hospital, and Regius Professor of Midwifery to the University of Glasgow. Dr. Lee was the author of numerous works in the department of medicine with which he had associated himself.

At a meeting of Council of the Poor-Law Medical Officers Association, held on February 6th, at No. 3, Bolt-court, it was resolved that a communication be addressed to the Local Government Board, praying that a general order may be issued granting a certain fee, to be determined by the Local Government Board, to duly qualified practitioners assisting a Poor-Law medical officer at any capital operation, or in any case of craniotomy or Cæsarean section. The Council also directed Dr. Rogers and Mr. Barnes to watch the case of Mr. Fenton, and take action in the name of the Association, if necessary.

It is announced that the task of removing to England the obelisk known as "Cleopatra's Needle" will be undertaken by Mr. Erasmus Wilson at his own cost. The project redounds to the honour of Mr. Wilson, but it is not creditable to a nation which permits a work that confessedly ought to have been accomplished years ago at Government expense to be undertaken by a private individual.

Judging from the lately issued annual report of the National Committee for Promoting the Boarding-out of Pauper Children, the system is becoming popular over the country. Guardians of the poor and others are, it is said, becoming alive to the advantages, the least of which is economy, of placing out young persons in carefully selected cottages under regular supervision over the plan of bringing them up in Union-houses and district-schools.

The clerks and officials at the Admiralty, Whitehall, to the number of 180, were revaccinated last week by Dr. W. Pearse, the public vaccinator at Tottenham Court-road Chapel and Westminster stations; the same gentleman also revaccinated fifty-three inmates of the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

The Local Government Board have shown a solicitude for public decorum which is quite pathetic. They have advised that when it is found necessary to provide a parish ambulance the vehicle should be so constructed as to have externally the appearance of a brougham, "so as to secure the least amount of shock possible being given to the public."

We have made inquiry, and find that the revised edition of the British Pharmacopœia will be published in about a fortnight. The Medical Register, 1877, will be ready about the same time.

THE appeal of Monck, the "medium," against the conviction which consigned him to prison as a vagrant guilty of deluding Her Majesty's subjects by subtle arts, to wit, "palmistry or otherwise," has failed. The judgment of the court below is confirmed. This is satisfactory, the more so as, besides giving the common-sense view of spiritualism the sanction of "law," it will form a precedent for the decision of other cases.

A CASE of traumatic tetanus was lately successfully treated in the Massachusetts General Hospital with a somewhat free use of choral hydrate and bromide of potassium given in enema. The patient, a lad aged eleven years, took during the ten days he was under treatment an average of 80 grains of choral and 115 grains of the bromide every twenty-four hours.

THE recent floods have caused a vast amount of misery in the canal population, many of whom are not only thrown out of work, but completely isolated. It is to be hoped, in the interests of health, morality, and education, all women and children will be compulsorily eliminated from these barges by legislative means during the present session of Parliament.

AT a meeting of the Surgical Society of Ireland, held last week, Mr. Rawdon Macnamara exhibited a specimen of a calculus which he had removed from a child aged four years, and which weighed a quarter of an ounce—a most unusual size in a patient at so early an age.

DR. MOXON will deliver the Annual Oration at the meeting of the Hunterian Society on Wednesday, the 14th inst., at 8 P.M.

DR. BARNES has been elected an Associate Fellow of the College of Physicians of Philadelphia.

THE JOHNS HOPKINS HOSPITAL AT BALTIMORE.

BALTIMORE may fairly be regarded as a lucky city. It is scarcely ten years since the munificent George Peabody gave 1,400,000 dollars for the endowment of the Peabody Institute, and now the city has been further enriched by the will of a quaker citizen, Mr. Johns Hopkins, who has left the enormous sum of 7,000,000 dollars (about a million and a half sterling) to build and endow a university and to build and endow a hospital.

The plans of the proposed hospital are now before us, together with two letters addressed to the President of the Johns Hopkins Hospital by Dr. Billings, the chief of the Hygienic Department of the United States Army, whose valuable opinion has been sought for by the committee, who were naturally anxious to be guided in this work by a man whose authority in such matters is not only great, but whose opinion must necessarily be totally unbiased since he in no way will benefit by any of the Hopkins bequest.

The new hospital is designed to receive 400 patients. A site has been selected to the east of the city, on the slope of a hill having a gentle declivity. The average elevation of the site above high-water mark is 112 feet, and the soil is a stiff clay, beneath which are beds of sand. The facilities for surface-drainage are excellent. The general aspect of the site is to the south, and some protection is afforded to the north-east by the crown of the hill on which it stands. The size of the site is about fourteen acres, 709 by 856 ft., and it may be as well to recall to the minds of our readers that such a space is about as big as the Horticultural Gardens at Kensington. The hospital buildings are evenly spread over the whole of this large tract of land, the centre being occupied by a garden 170 ft. by 500 ft.

The Committee are to be congratulated on the fact that the space at their disposal is practically unlimited, and that in the carrying out of the plans money is no object. They must be careful, however, not to make an exaggerated use of either of these great advantages. For administrative purposes there must be a limit to the size of the area on which a hospital stands, and we have our doubts whether, in the plans before us, these limits have not been exceeded. The buildings, which are to accommodate 400 patients, consist of sixteen sick wards or pavilions. These wards are placed sixty feet apart, are raised by means of a basement storey 10 feet above the ground, and are united by a corridor, the roof of which is on a level with the floor of the ward, so that a flight of steps has to be ascended in order to reach the ward from the corridor.

There are some 600 yards of connecting corridor, and the superintendent in making a tour of the buildings under his care would traverse all the corridors twice, and thus walk about 1300 yards, and ascend and descend sixteen flights of steps. It is obvious that the size of the area will entail great labour in the distribution of food and medicine, and the transport of patients. The kitchen is 390 yards from the furthest ward, and the dispensary nearly as far. There are no cross corridors, and the complete circuit of the hospital has to be made in order to get from one end-ward to the other.

We are not quite clear as to the reason for placing the corridor below, instead of on a level with, the floor of the wards, nor do we quite see what is the object of raising each ward on a ten-foot basement which is to be devoted to no purpose whatever. The difference in level between corridor and ward is a great obstacle to the easy distribution of food and drugs, and the high basements will add immensely to the cost; but if commensurate advantages are obtained, these are neither of them matters which deserve attention. The wards face the south, and are placed on the south side of the corridor, while the ward-service building, containing closets, baths, separation wards, &c., are on the north side. Two of the wards are devoted to paying patients, and two others are set aside for cases needing isolation, and will be devoted, we presume, to infectious cases. These isolating wards are placed at the extreme ends of the corridors at the furthest possible points from the kitchen, dispensary, and disinfecting chamber, laundry and administration block. The result of this is that all traffic to and from the isolation wards must take place through the whole of the connecting corridor, the air in which, in spite of the different levels, must find its way into the wards above.

The administration block and the paying wards are to form the main front of the hospital, and are to constitute the monumental and commemorative features of the building. The administration building affords accommodation for the superintendent, resident physicians, and resident students, with the necessary library and dining-room, together with the house dispensary and the apothecaries' quarters. The dispensary is only 14 by 18 feet, and is in close contiguity to the residents' dining-room, which will not be pleasant for those who use the latter apartment.

There is to be a nurses' home, affording a lodging for sixty-six nurses and probationers. This home strikes us as being an ill-planned dwelling. The water-closets and baths (thirty chambers in all) have none of them any direct window communication with the open air; they are clustered round a central shaft (*down* which in our experience there often descend currents), and open into the corridors of the house. With so much space, can nothing better be devised? The number of nurses and probationers (sixty-six) appears to us small for so large a hospital.

The laundry, kitchen, servants' dining-rooms, store-rooms, boiler and engine houses, are all placed in one building, which is situated at the extreme north-west angle of the hospital. It is proposed to heat the hospital by steam-pipes, and the boilers for these, together with their furnaces and the furnaces required for the kitchen, laundry, and disinfecting chamber, are grouped together. The products of combustion are carried off by a chimney 170 feet high, which it is proposed to use as an aspirating shaft for the whole hospital, each ward being placed in communication with this shaft by means of a 3 ft. duct. If this plan be adopted the careful isolation of the wards will be to some extent nega-

tived by this communicating duct, and Dr. Billings is not yet able to advise the committee on this matter. He has lately been travelling in Europe to obtain information on this point. The out-patient department and the operating theatre form a separate building. The latter is very complete in its arrangements, and comprises waiting-rooms, etherising-rooms, consultation-rooms, and recovering-rooms, besides the ordinary arena and gallery. The autopsy building is likewise very complete, and includes, in addition to the ordinary conveniences, special rooms for microscopy and photography.

The hospital will be fitted throughout with the means of electric communication, and it is intended that the temperature of each ward and the rate of influx of air shall be recorded at the central office of the superintendent. In one thing the committee are most wise. They have printed and circulated very widely the plans of the proposed building, and invite criticism before the building operations commence. They may fairly hope one day to possess the finest hospital in the world.

ARMY MEDICAL SCHOOL, NETLEY.

PRESENTATION OF THE SIR RANALD MARTIN MEMORIAL GOLD MEDAL.

THIS interesting ceremony took place on the 5th inst. in the lecture hall of the Army Medical School. The occasion brought together a very distinguished assembly. The Secretary for War was unable from the pressure of public business to attend, and Lord Salisbury, for obvious reasons, could not be present. His lordship's place was taken by Sir Garnet Wolseley, who, being now a member of the Council of India, represented the Secretary of State on the occasion. Sir William Muir, K.C.B., and Sir Joseph Fayrer, K.C.S.I., physician to the Council of India, and *ex-officio* member of the Senate of the Army Medical School, and a large number of military officers of distinction, were present. Two of the sons of the late Sir Ranald Martin came from distant parts of the country to witness the first presentation of a prize intended to perpetuate the great services rendered to military medicine by their distinguished father.

Professor Maclean opened the proceedings by reading out the results of the final examination at Netley for the three services, from which it appeared that Dr. Moorhead, of H.M. Indian Army, who had taken the highest place at the London examination in August last, had maintained it at Netley, and after a severe contest was thus the winner of the Herbert prize, the highest honour the school has to bestow. Dr. Maclean then explained that nine candidates from the British, the same number from the Indian Services, and eight belonging to the Royal Navy, had competed for the Martin Prize. The contest, however, finally lay between Dr. Allin, the first man in the British Army, and Dr. Moorhead, the first in the India list. The marks gained in Military Medicine at the general examination were added to those awarded for the special paper set for this competition—"On the laws which appear to govern the propagation of Asiatic cholera." The medal was awarded to Dr. Moorhead, who, however, had only a majority of twenty marks over his close competitor. The announcement was hailed with loud and hearty applause by the other young medical officers.

Sir Garnet Wolseley then addressed the candidates. He explained that he was there as the representative of the Council of India, in the absence of Lord Salisbury. Sir Garnet then said that when he entered on his own profession, it was with a determination to succeed, and to devote to this end all the energies of his mind and body; he urged the young men before him just entering on their career to do the same. He ridiculed without mercy the whole tribe of "unsuccessful men" in all branches of the public service, who frequent clubs and are to be met with in society, who are grumblers by profession, and never cease to pour their grievances into the ears of their friends. "Such men," said the speaker, "if you could only get at the truth, were the architects of their own misfortunes." He pointed to the useful and honourable career open to medical officers in the three services, and the amount of good they might do—to the, in his opinion, superior pleasures of a varied and adventurous life over "the humdrum existence of life in England." Turning to the special business of the day, he gave a sketch of the life and services of Sir Ranald Martin, and insisted much on his many claims to be honourably remembered by the army, and more especially by the medical officers of the three services for whom he so long and so unselfishly laboured, holding him up as a bright example to be followed by the young medical officers before him. Grasping the hand of Dr. Moorhead, Sir Garnet congratulated him on the distinction he had attained, and expressed an earnest hope that his future career would be as successful as its honourable beginning, and, amid the hearty applause of the audience, presented the medal.

The guests then adjourned to the mess-room, where an elegant and substantial luncheon concluded the business of the day.

THE SMALL-POX EPIDEMIC.

THE fatal cases of small-pox registered among the urban population of nearly eight millions of persons living within the area embraced by the Registrar-General's Weekly Return, which had been 123 and 124 in the two weeks ending 20th and 27th January, further rose to 142 during the seven days ending Saturday, the 3rd inst. These 142 deaths included 115 in London and its suburban districts, 19 in Liverpool, and 8 in Manchester and Salford. It is satisfactory to find that sixteen of the twenty largest English towns continue free from small-pox fatality. The deaths from small-pox have shown an increase during recent weeks both in London and Manchester. The annual death-rate from the disease during the first five weeks of this year was equal to 2·4 per 1000 persons living in Salford, 1·4 both in London and Liverpool, and 0·7 in Manchester.

The deaths from small-pox in and around London during the week ending 3rd inst. were 115, against 89 and 97 in the two preceding weeks. Of these 115, 103 occurred within registration London, and 12 in the suburban districts; of the latter, 3 occurred in Barnet, 2 in Croydon and Mitcham, 2 in West Ham, 2 in Ilford, and 1 each in Kingston, Tottenham, and Walthamstow. The 103 in London proper included 42 in public institutions, and 61, or 59 per cent. of the total cases, in private dwellings. The week's returns bear evidence of the result of the recent deficiency of hospital accommodation for small pox patients provided in the metropolis by the Metropolitan Asylums Board and the local sanitary authorities. The proportion of deaths in private dwellings showed a marked increase, which augurs unfavourably for the future of the epidemic, when it is considered that home-isolation is almost invariably an impossibility among the class to which the prevalence of small-pox is principally confined. After distributing the 42 deaths in institutions, it appears that 11 of the deceased small-pox patients had resided in the west, 32 in the north, 3 in the central, 26 in the east, and 31 in the south groups of districts. The fatal cases showed a marked increase in North London, especially in Hackney and Islington, and were also more numerous in West and East London. The annual death-rate from small-pox last week exceeded 2 per 1000, both in North and East London. In East London the disease showed fatal prevalence in Poplar, Bow, and Bethnal-green; in South London the greatest fatality occurred in Southwark.

During the week under notice the Metropolitan Asylums Board brought the hospital at Limehouse for small-pox convalescents into requisition; it has accommodation for 177 patients, and contained 39 on the 3rd inst., who had been transferred from other hospitals. The total accommodation now provided by the Board is 1077 beds; of the 900 available for new cases, 799 were occupied on the 3rd inst., and it is reported that no less than 239 new cases were admitted during the week ending on that day, against 170 in the preceding week.

Correspondence.

"Audi alteram partem."

SUBCUTANEOUS SECTION OF THE NECK OF THE FEMUR.

To the Editor of THE LANCET.

SIR,—I trust you will allow me to correct an erroneous statement made by Mr. Barwell in the discussion which took place at the last meeting of the Clinical Society on the 26th January, on "the subcutaneous section of the neck of the thigh-bone." According to the report of the meeting in THE LANCET of last week, Mr. Barwell remarked, "Of Mr. Adams's twenty-two cases, three died, and two or three escaped narrowly."

This statement refers to my paper read at the Medico-Chirurgical Society on the 10th October last, and fully reported in THE LANCET of the 14th October. In this report, p. 535, it is stated: "In the table accompanying the paper it is shown that the operation was successful in twenty out of twenty-two cases, death from pyæmia resulting in one case; and death accelerated by chronic suppuration following the operation in another case, that of a girl, aged eighteen years, who succumbed with symptoms of kidney disease, and tubercular deposit in the lungs." In the paper this death was stated to have occurred eight months after the operation. Instead therefore of three deaths, only one directly, and one indirectly after a period of eight months, resulted from the operation, and both these occurred in cases of advanced strumous disease, a class to which, as a general rule, I have stated the operation is not applicable.

Although a little suppuration occurred in a few cases, with these exceptions all the wounds healed by the first intention like ordinary tenotomy wounds, or other operations in which the true subcutaneous character is preserved, and the admission of air effectually excluded.

I am, Sir, yours very truly,
W. ADAMS.

Henrietta-street, Cavendish-square, Feb. 5th, 1877.

A NEW ETHER INHALER.

To the Editor of THE LANCET.

SIR,—The best and safest means of producing anæsthesia in surgical operations must claim the attention of every practical surgeon, and few can think of operating without considering for a moment the relative danger of the several varieties of anæsthetics used to produce insensibility. Different kinds of anæsthetics have been recommended from time to time—such as chloroform, alone or mixed with ether; nitrous oxide gas, alone or mixed with ether vapour, as used by Mr. Clover; bichloride of methylene; and, lastly, ether. The dangers of chloroform are well known, when it is stated that one death a week is said to be the average in this country. The verdict of the London Chloroform Committee is also well known, when they stated that an agent is desired which is not so dangerous in its operation as chloroform. Ether, no doubt, is the agent; and I cannot but quote here the words of the late Prof. Morgan, of Dublin, who did much to reintroduce the use of ether as an anæsthetic in surgical practice: "As ether represents such an agent more so than any as yet discovered, I am desirous of drawing attention to its advantages and superiority; and when I find that but one death in 23,204 ether inhalations can be ascertained as at all attributable to its use, I believe that a ratio representing merely an infinitesimal risk has been thus attained, and that by using ether as a pain-destroyer, instead of the patient entering upon an operation with the sword of Damocles suspended over him, as with chloroform, he will sink more calmly, and infinitely more safely, into insensibility, relying with confidence on the mystic power of the anæsthetic, the skill of the surgeon, and the goodness of his Maker in obtaining relief from his sufferings."

For the last nine months I have been using an ether inhaler which I am now desirous of introducing to the notice of the profession. Its chief advantages are as follows:—1. It is simple in construction and application. 2. It is not expensive. 3. The small quantity used to produce anæsthesia (average quantity one ounce). 4. Prevents any loss or evaporation of ether vapour. 5. Its small size and great portability (can be carried in the pocket of the administrator). 6. Short time required to produce complete anæsthesia (average two minutes). 7. The great safety to the patient during administration.

The following is a brief description of the inhaler. It consists of—(*a*) An india-rubber flexible bag, covered over with a network, to prevent undue expansion during expiration. (*b*) A soft metallic mouthpiece which allows of adaptation to any face, the soft metal being able to be bent into any shape; along the border applied to the face it is lined with india-rubber tubing, in order to fit more closely, and thus prevent the ingress or exit of air. (*c*) A simple valve, so as to admit air if required, or allow its escape if necessary. In the body of the inhaler there is a cone-shaped wire cage, into which fits a similarly shaped hollow sponge, into which the ether is poured, and the inhaler is then ready for administration. If it is necessary to give more ether in a prolonged operation, there is a tube passing down to the centre of the sponge, into which the ether can be poured without raising the mouth-piece from the face.

I have now used this inhaler at all ages in both sexes in nearly all the usual operations in surgery, including deligation of the subclavian artery, amputations, ophthalmic and various prolonged dental operations, and have therefore had every opportunity of testing its efficiency in hospital and private practice, and I have received testimonials in its favour from such eminent Dublin surgeons as Messrs. Porter, Wharton, Smyly, Macnamara, White, Wm. Stokes (Richmond Hospital), Surg.-Major Ramsay (Rifle Brigade), and Dr. Jacob.

In conclusion, I have to thank Messrs. James Coxeter and Son, Grafton-street East, for carrying out so efficiently my instructions regarding the manufacture of the inhaler.

I am, Sir, yours truly,
Meath Hospital, Dublin. LAMBERT H. ORMSBY, F.R.C.S.

TREATMENT OF HYDROPHOBIA IN GLASGOW ROYAL INFIRMARY.

To the Editor of THE LANCET.

SIR,—It is not my intention to notice the criticisms of your correspondents regarding the means which were adopted to discover the nature of the disease, or to refer to the measures which had been carried out for the relief of the poor sufferer. It is right, however, that I should make clear to your non-professional readers, who are not familiar with the phraseology of medical reports, and who in consequence are liable to fall into error, that the admission of the dog into the ward had been purely accidental, and was not one of the means employed to bring out the symptoms of the disease. The lady whose dog ran through the ward was visiting the hospital at the time (the afternoon) for the best of purposes, and there was no one with the patient but the nurse.

In your editorial foot-note to one of the letters you very properly state that the case was one of great difficulty, and had been attended to most assiduously by the staff of the infirmary. It was the first case, so far as is known, that had appeared in the city, and its nature was not readily recognised. I may mention that not a few of the more able medical men, who had opportunities of studying the disease during its progress, did not believe that it was a case of hydrophobia at all.—I am, Sir, yours truly,

Glasgow, Feb. 5th, 1877. JAMES DUNLOP.

THE SETON IN CHRONIC OSTEITIS.

To the Editor of THE LANCET.

SIR,—The object of the following remarks is to record a case of chronic osteitis in which, most of the ordinary remedial measures having failed, the use of the seton proved a complete success. The seton, as a general therapeutical agent, is now all but obsolete, I suppose, and, as a particular one in osteitis, has clearly the charm of novelty.

The history of the case is briefly this. A young woman, aged twenty-seven, in the humbler ranks of life, while dancing at a domestic festivity, accidentally received a kick from her partner on the left ankle. From this time she began to experience pain, which gradually extended up the leg, and increased in intensity; and when I saw her, about a month afterwards, the leg was swollen and discoloured, the skin having a tawny eczematous appearance. Pain and tenderness were well marked, especially the former.

After some useless temporising with anodynes, blisters, &c., in order to dispense with the knife, if possible, I made an incision about two inches long on the inner surface of the tibia at its lowest third, rasping the point of the knife against the bone as well as I could. The pain was immediately subdued, and continued to diminish steadily, until in process of time the wound closed, when gradually the pain returned. It was now evident that a discharging wound was the one thing essential to success. A seton steeped in carbolic oil was therefore introduced, and left for several weeks, until every trace of pain had vanished. After this the patient made a very slow but perfect recovery, a period of seven months having intervened from the date of her first coming to me and that of her complete restoration to health.

Truly yours,

Tongue. J. A. AUSTIN, M.B.

DEATH FROM CHLOROFORM.

To the Editor of THE LANCET.

SIR,—I have to record the death from chloroform of one of the out-patients of the Peterborough Infirmary and Dispensary. The patient was suffering from a strangulated inguinal hernia, and after the taxis, unaided, had failed, chloroform was given before again attempting reduction. The patient was brought fairly under the influence of chloroform, and as, during the manipulation of the hernia, he showed signs of returning consciousness, I administered a little more, whilst the surgeon who was assisting me, and who previously had taken charge of the anæsthetic, tried to return the bowel. Shortly afterwards his breathing suddenly became shallow and irregular, and his radial pulse could not be felt. Although the usual means of resuscitation were promptly resorted to, the patient never rallied. The man was fifty-two years of age, and had a history of rheumatic gout, but unfortunately no post-mortem was allowed. The whole quantity of chloroform used was two drachms, and it was administered on a thin handkerchief held lightly over the face.—I am, Sir, your obedient servant,

JOS. HARRY WILSON, M.R.C.S.

Peterborough, Jan. 24th, 1877.

ART IN HOSPITALS.

To the Editor of THE LANCET.

SIR,—A misapprehension has arisen as to the *bona fides* of my offer of a hundred guineas towards a fund for introducing art into hospitals, because of the condition that one thousand subscribers should also each contribute a similar sum. I withdraw such condition. I will gladly give one hundred guineas to a responsible Committee, as soon as one is formed, to promote the Art Fund of the Hospitals of London.—I am, Sir, your obedient servant,

Gloucester-terrace, Hyde-park. J. LAWRENCE-HAMILTON.

THE CHILDREN'S HOSPITAL, PENDLEBURY.

To the Editor of THE LANCET.

SIR,—My attention has been called to a letter from Dr. Rayne in last Saturday's LANCET, in which he mentions me as his authority for saying that a specific charge was brought against him by Dr. Borchardt at the meeting of the Board of Governors of the General Hospital for Sick Children at Pendlebury.

The chairman has already informed you that no such charge was made by Dr. Borchardt, and as I at once minuted my conversation with Dr. Rayne, and communicated those minutes the following day to a sub-committee of the Board of Governors, I do not rely upon my memory alone when I state that Dr. Rayne must be labouring under a misconception.

I remain, Sir, yours faithfully,

H. M. STEINTHAL,

Vice-Chairman of the Board of Governors of the General Hospital and Dispensary for Sick Children.

Lower Mosley-street, Manchester,
February 7th, 1877.

Medical News.

BRITISH MEDICAL SERVICE.—The following is a list of gentlemen who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

	Marks.		Marks.
Allin, W. B.	5360	Laffan, G.	3402
Ryan, M. R.	4896	Bourke, U. J.	3397
Reynolds, E. O.	4570	Robinson, R.	3146
Robbins, H. J.	4546	Lamprey, J. J.	3072
Morris, G. G.	4474	Allen, W. H.	3050
Hayes, A. C.	4353	Gunning, R. C.	3010
Williamson, J. F.	4270	Russell, G. M.	2945
Carey, J. T.	4236	Cotton, H.	2910
Rainsford, W. J.	4183	Hunt, J. P.	2893
Boulger, J.	4105	Peyton, J. L.	2882
Tuthill, P. B.	4015	Carleton, A. W.	2878
Boyd, T.	3930	Hughes, G. A.	2866
Johnston, P. H.	3896	Keith, A. C.	2861
Murchison, F.	3625	Brodie, J.	2085
Emerson, J. B.	3482	Eagar, F. G. L.	2082
Hewett, A.	3480	Large, B. W.	2478
Roche, E. A.	3477		

INDIAN MEDICAL SERVICE.—The following is a list of candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

	Marks.		Marks.
* Moorhead, J.	5638	Eaton, C. B.	4525
Bentson, C. H.	5393	Eyre, M. S.	4505
Owen, C. W.	5060	Channer, O. H.	4490
Griffiths, G. S.	5000	Young, E. W.	4465
Grant, P. M.	4966	M'Calman, H.	4360
Lee, W. A.	4934	Ross, D. R.	4308

* Gained the Herbert Prize and Martin Memorial Gold Medal.

NAVAL MEDICAL SERVICE.—The following is a list of candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

	Marks.		Marks.
Henwood, J. D.	4735	Armstrong, G. W.	3844
Walsh, H. W. D.	4657	Kellett, L. H.	3586
M'Swiney, M. O'C.	4571	Dow, J. C.	3422
Guppy, H. B.	4482	Newland, C. F.	3335
Connell, J. J.	4457	Barcroft, P. J.	3330
Mugliston, T. C.	4405	Twigg, G. D.	3197
Williams, P. E. H.	4045	Fogerty, G. J.	2960
Williamson, F.	3997	Bookey, W. J. B.	2810
Murdoch, E.	3860	Browning, J. N.	2707
Rae, W. M.	3850	Corcoran, L. W.	2460

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Feb. 1st:—

Godfrey, Charles Walter, The Hundred, Romsey.
Meek, John William, Macclesfield.
Langdon, John Winkley, Chester.

The following gentlemen also passed the Primary Professional Examination:—

F. Clarence Smith, University College; David Hepburn and C. William Sharples, Middlesex Hospital; George Eliot, Westminster Hospital; Charles Arthur Low, London Hospital; Edward Thomas Crouch and Frederick George Stewart, Guy's Hospital; Spencer Francis Beard, Sheffield Infirmary; James Deakin, Owens College, Manchester.

At the Preliminary Examination in Arts held at the Hall on Jan. 26th and 27th, 97 candidates presented themselves, of whom 37 were rejected, and the following 60 passed and received certificates of proficiency in General Education:—

FIRST CLASS (in order of merit).—1st: C. E. Paget and E. Tomlinson. 3rd: A. L. Copney, H. Greiffenhagen, and R. A. Palmer. 6th: G. N. Stephen. 7th: C. J. Colville, J. M. France, J. P. Myles, and H. L. Swinson.

SECOND CLASS (in alphabetical order).—H. L. Albert, G. T. Bates, D. M. Barry, W. C. Beatley, W. B. Benjafield, H. Blackburn, G. A. Branson, E. C. Bray, H. W. A. Burke, J. M. Carvell, H. R. Colborne, C. V. Cotterell, S. J. A. Cotterell, D. R. Davies, E. Davis, E. S. Earle, T. Edwards, A. W. Fairlie, I. B. Goodridge, C. H. Greet, E. Harvey, J. P. Hayes, J. W. C. Herbert, R. Holcraft, R. L. Holland, R. Holton, G. Jones, C. H. Lamerle, H. Ley, A. Livingston, D. H. G. Maclean, E. D. Minter, J. D. Maloney, C. A. Morton, G. H. Moxon, W. A. Nutt, Y. O'Keeffe, C. Pound, L. O. L. Raymond, W. B. Skelton, D. J. Slater, W. H. Stephens, H. B. Strong, E. C. H. Van Buren, F. J. Walker, H. Webb, T. A. Wise, T. Whitaker, G. C. Wilkin, J. Woodgate.

THE next Preliminary Examination for the diploma of Member and Fellow of the Royal College of Surgeons of England will be held on the 13th, 14th, and 15th of March.

THE Lord Chancellor has, on the recommendation of the Lord-Lieutenant, placed the name of Mr. Harper, of Holbeach, on the Commission of the Peace.

AT a meeting of the Town and University Improvement Board of Cambridge on Tuesday last, a special committee was appointed to inquire into and report on the practice of running the sewage of the town into the river Cam.

THE deaths are announced of two eminent German savants—Professor Poggendorf, who occupied the Chair of Physics in the University of Berlin, and whose researches in magnetism and electricity are of great value; and Professor Hofmeister, the botanist, of the University of Tübingen.

THE Gold Medal of the North of India Rifle Association, carrying with it the title of Champion of India, competed for at various stations in the North of India last December, has been won by Surgeon-Major Hamilton, a native of Dublin. This is the second time Dr. Hamilton has won this prize.

SIR HENRY THOMPSON presided on Wednesday evening over a special public meeting of the National Temperance League, which was held in Exeter Hall, when the subject of moderate drinking was discussed, Dr. Richardson, Canon Farrar, Mr. Edward Baines, Vice-Admiral Sullivan, and others taking part in the debate.

THE Sanitary Institute will hold a public meeting next month at the rooms of the Society of Arts to consider the recently-issued Local Government Board report on the modes of treating town sewage. The Duke of Northumberland is expected to preside on the occasion, and Sir Joseph Bazalgette will open the discussion.

PRESENTATIONS.—Dr. and Mrs. Jevers have been publicly presented with a watch and time-piece in recognition of the Doctor's gallant conduct in rescuing, at great personal risk, a young gentleman from drowning in the Medway at Tonbridge, March 4, 1876.—The medical officers and officials of the Glasgow Western Infirmary have presented Dr. Lilly, the Superintendent, with a handsome gift consisting of a silver salver and tea and coffee service as a token of their esteem on the occasion of his relinquishing the appointment.

Medical Appointments.

ANDERSON, Mr. A. W., has been appointed Assistant House-Surgeon to the General Hospital, Nottingham.

AVELING, J. H., M.D., has been appointed Obstetric Physician to the St. Marylebone General Dispensary, vice Hayes, resigned.

BAIN, D. S. E., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer and Secretary to the Newark Hospital and Dispensary, vice Jumeaux, resigned.

BARROW, A. H., M.R.C.S., L.S.A., has been appointed Attending Accoucheur and fifth Attending Medical Officer for the Pimlico and Westminster District of the Provident Medical Institution, Pimlico-road, vice Russell, resigned.

BARROW, Dr. F., has been appointed Medical Officer and Public Vaccinator for the East Rothbury District of the Rothbury Union, vice Vardy, deceased.

BAYNES, Mr. J., jun., has been appointed Public Analyst for Kingston-upon-Hull. £50 for one year, and fees to the public being consumers of the articles to be analysed.

CRICHTON, J. S., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Arbirlot, Forfarshire, vice Arrott, deceased.

DAVY, J. W., M.B., C.M., has been appointed Resident Assistant House-Surgeon to the North Dispensary, Liverpool, vice McAfee, resigned.

DINNEN, W. T., L.K.Q.C.P.I., M.R.C.S.E., has been appointed House-Surgeon to the Flintshire Dispensary, Holywell, vice Davies, resigned.

DRURY, R., M.D., L.R.C.S.I., has been appointed an Extra Acting Physician to the Birmingham and Midland Free Hospital for Sick Children, vice Warner, resigned.

DUNCAN, W., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parishes of Dunrossness, Sandwick, and Cunningsburgh, in Shetland, vice Pole, resigned.

FINLAY, O. L., M.D., has been appointed Medical Registrar to the Middlesex Hospital, vice Humphreys, appointed Assistant Physician to the Hospital for Sick Children, Pendlebury, Manchester.

FREEMAN, Mr. D., has been appointed Surgeon to the Jews' Deaf and Dumb Home, Notting-hill.

GREENSLADE, G., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Rocester District of the Uttoxeter Union, vice Weston, resigned.

JACKSON, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for No. 11 District of the North Bierly Union, Yorkshire.

LE SAGE, W. L., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Cannon-street Male Adult Provident Institution, Birmingham.

MCDOWELL, B., M.D., F.R.C.S.I., has been appointed Surgeon to the Sligo Gaol, vice Little, deceased.

MANN, J., L.R.C.P.Ed., has been appointed Assistant Medical Officer to the Inverness District Lunatic Asylum, vice MacEchnic, resigned.

MONTEITH, J. M., M.B., C.M., B.Sc. (Pub. Health), has been appointed Resident Medical Officer to the Newcastle-on-Tyne Dispensary, vice Tennant, resigned.

MONTFORT, A. H., M.D., has been appointed Medical Officer, Public Vaccinator, &c., for the Rathvilly Dispensary District of the Baltinglass Union, co. Wicklow, vice Kidd, appointed to the Tullow Dispensary District, Carlow Union.

NEWBY, C. H., M.R.C.S.E., L.R.C.P.L., has been re-elected Surgical Registrar to St. Thomas's Hospital.

OATES, P., M.D., M.R.C.S., has been appointed second Hon. Consulting Accoucheur to the Provident Medical Institution, Pimlico-road.

O'CONNELL, D., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Templemore Dispensary District of the Thurles Union, co. Tipperary, vice Forsayeth, deceased.

SMITH, G. F. K., F.R.C.S.E., has been appointed a Surgeon to the General Infirmary, Northampton, vice Ashdown, resigned.

STARTIN, J., M.R.C.S.E., has been appointed Surgeon to the St. John's Hospital for Diseases of the Skin, Leicester-square.

STRUGNELL, Mr. F. W., has been appointed Resident Surgeon to the Small-pox Hospital, Highgate, vice Marson, resigned.

SWETE, E. H. W., M.D., has been appointed Public Analyst for the City of Coventry, vice Hill, resigned. £1 1s. per analysis, and £3 3s. per day and travelling expenses, when required to give evidence.

VAWDREY, T. G., L.R.C.P.Ed., M.R.C.S.E., has been appointed a Medical Officer to the Cannon-street Male Adult Provident Institution, Birmingham, vice Shaw, deceased.

WATSON, W. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the First District of the Eastern Division of the Barony Parish, Glasgow, vice McInnes, Patrick, Young, and Mathie, whose appointments have expired.

Births, Marriages, and Deaths.

BIRTHS.

CHANING-PEARCE.—On the 2nd inst., at the Manor House, Brixton-rise, the wife of J. Chaning-Pearce, M.B., of a daughter.

DAVSON.—On the 3rd inst., at Mount Galpine, Dartmouth, the wife of F. Adams Davson, M.D., of a daughter.

GROGONO.—On the 7th inst., at Stratford, Essex, the wife of Walter Atkins Grogono, M.R.C.S.E. &c., of a son.

HAMPSHIRE.—On the 29th ult., at Cliff House, Shanklin, the wife of Frederick K. Hampshire, M.B., Civil Surgeon, Straits Settlement, of a son.

LIDDARD.—On the 30th ult., at Ladbroke-grove-road, the wife of Thomas Liddard, L.R.C.P.L., of a daughter, still-born.

RIDPATH.—On the 4th inst., at Great Driffield, Yorkshire, the wife of David Ridpath, M.D., of a son.

THOMSON.—On the 26th November, at Daisy Bank, York-place, Dunedin, Otago, New Zealand, the wife of A. T. Thomson, M.D. &c., of a son.

YELF.—On the 29th ult., at Moreton-in-Marsh, the wife of Leonard K. Yelf, M.D., of a daughter.

MARRIAGES.

FLEETWOOD—BINGER.—On the 1st inst., at Holy Trinity Church, Rhyl, by the Rev. Canon Morgan, M.A., assisted by the Rev. Tudor Owen, M.A., William J. Fleetwood, L.K. & Q.C.P., L.R.C.S.I., of Walton-on-the-Hill, Liverpool, to Mary (May), second daughter of the late J. O. Binger, of Chester.

HUTCHISON—LANE.—On the 6th inst., at St. Augustine's Church, Queen's-gate, Kensington, by the Rev. R. N. Bricknell, of Hertford College, Oxford, Rector of Salford, Oxon., assisted by the Rev. R. R. Chope, B.A. Oxon., Vicar, G. Wright Hutchison, M.D. Univ. Aberd., of Chipping-Norton, Oxon., eldest son of the Rev. George Hutchison, D.D., Incumbent of the Parish of Banchory-Ternan, Kincardineshire, Scotland, and J.P. for the County, to Bridget, third daughter of William Lane, Esq., of Marston Maisey, Wilts, and Broadfield, Gloucestershire, Lay Rector of Northleach, in the latter county.

DEATHS.

BAILLIE.—On the 28th ult., at Marylebone, Neil Benjamin Baillie, M.R.C.S.E., aged 42.

DAKEYNE.—On the 30th ult., at Warslow, Staffordshire, Bowden Bower Dakeyne, M.R.C.S.E., aged 72.

FETTES.—On the 22nd ult., at Laurencekirk, Kincardineshire, James Fettes, L.R.C.S.Ed., aged 79.

GOLDSBRO.—On the 29th ult., at West-square, Southwark, Thomas William John Goldsbro, M.D., aged 56.

KENT.—On the 29th ult., at Ballyvourney, co. Cork, William Henry Kent, M.D.

LEE.—On the 6th inst., at Surbiton-hill, Robert Lee, M.D., late of Savile-row.

LEESON.—On the 1st inst., at Blackburn, Thomas Richard Leeson, M.R.C.S.E., aged 45.

NORMAN.—On the 1st inst., at Manton, Rutlandshire, George Blake Norman, M.R.C.S.E., aged 76.

REED.—On the 15th ult., on the homeward voyage from Monrovia, West Africa, Matthew Reed, M.D., Surgeon H.M.S. *Pioneer*, aged 29.

STEVENS.—On the 12th ult., at Bishops-Tawton, Thomas Howell Stevens, M.R.C.S.E., aged 66.

TAYLOR.—On the 30th ult., at Urmston, Edmund Taylor, M.R.C.S.E., aged 45.

THORP.—On the 28th ult., at Listowel, Gabriel Thorp, M.B., aged 60.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

EDUCATION OF DEAF-MUTES.

IN a lecture, entitled "Deaf *not* Dumb," recently delivered before the Gloucester Literary and Scientific Institution, and since published in pamphlet form by Messrs. Longmans, Mr. B. St. J. Ackers gives, amongst other things, the results of personal investigations on the best mode of educating the unfortunate subjects of deaf-mutism. The author enumerates three systems: the German, which teaches by articulation or lip-reading; the French, which consists in the use of signs, dactylology, and pantomime; and the combined system, which comprises the two others, but which, being based on signs, approaches nearer to the French than to the German plan. Of these systems, Mr. Ackers prefers the German, as it teaches the pupils from the first to think in the order of the language of their country, whereas the French method teaches the pupil to think in the order of the signs, and ignores particles. In regard to the hereditariness of deaf-mutism, a remarkable instance is cited on the authority of the Hon. F. B. Sanborn, a gentleman who has paid great attention to questions relating to the statistics of the affliction. Martha's Vineyard, Massachusetts, was inhabited in 1720 by about two thousand Indians, whose descendants now number some two hundred; among these no case of a congenitally deaf child has occurred. Yet the number of deaf individuals in the community amounts to fully '66 per cent.—i. e., ten times the ratio usually prevailing. All these unfortunates are descendants from one common ancestor, a missionary who went to reside on the island in the year mentioned, and who, though himself in full possession of the faculties of speech and hearing, was the father of a deaf-mute, through whom the terrible defect in question has been propagated.

Dr. A. L. Galabin's communication shall appear in an early number.

TYPHUS IN CHELSEA.

To the Editor of THE LANCET.

SIR,—I could have wished, and perhaps I almost expected, the leading medical journal of London to have referred in somewhat more kindly terms to the efforts that have been made, not altogether unsuccessfully, by the medical officer and inspectors of Chelsea to cope with the unexpected outbreak of typhus there. It is fortunately true that typhus is essentially "abnormal," and the means employed to arrest its spread may in some sense be called abnormal too. Naturally a feeling of alarm is awakened amid a sanitary authority when they learn that small-pox or typhus has found foothold in their district. They may think that the ordinary staff is scarcely adequate to meet the extraordinary circumstances; but it strikes one as peculiar in the interest of the public health to criticise such activity, and call it abnormal.

The medical officer of health, unless endowed with somewhat more than human prescience, can scarcely know when typhus of a malignant type is to be imported into his district, or that it has effected a lodgment there, till returns of sickness or death bring the fact to his knowledge; and it is well if he be found prepared for the emergency. The inspectors know only too well the houses in the parish where landlords and tenants combine to set all sanitary precautions at defiance; where the work done under compulsion one month is undone the next. Frequent inspections cannot altogether obviate the consequences of utter neglect, and it is only in presence of some formidable disease that such measures can be taken to supplement them as were sanctioned and approved by the vestry of Chelsea in the present emergency.

Drunkenness and rowdyism, with their concomitants of dirt, beggary, and disease, cannot be met by any provisions in Public Health Acts, or by any action of local sanitary authorities. If the would-be critic of the Chelsea officers went himself more frequently among the poor in their sickness, or among the wretched victims of the gin-shop, he would better understand why fever-nests exist. That they may be eradicated is the earnest hope of the philanthropist; that they do and will hold their ground so long as the squalor and misery of drunken riot degrade our town population is a problem too plain to need any demonstration of mine.

Yours truly,

London, Feb. 3rd, 1877. THE MEDICAL OFFICER OF HEALTH.

Twenty Two.—They are about the same in comprehensiveness. Information on the other questions may be obtained on application to the Secretaries of the institutions.

Mr. P. Allwork, (Brighton.)—The small work by Prof. Roscoe.

INSANITARY STATE OF CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—Will you allow me through your columns to call the attention of whoever is responsible for the health of Cambridge to the circumstance that an outbreak of typhoid fever is imminent in that town? The atmosphere in houses at the eastern end of Cambridge at the present time is simply deadly, as, in spite of traps, ventilating tubes, and open windows, the drains connected with the sinks, closets, and baths pour forth the most pestilential gases. A most foul sewage smell also can be distinctly perceived all along the Hill's-road and Station-road, which is ascribed by an old resident and architect to the silting up of the main drain, and I have little doubt that his view is correct.

I would beg, in conclusion, to point out to the officials concerned that this is a matter affecting the pockets of the ratepayers, as it would probably be cheaper to lift a main drain than to open a fever hospital. That the latter will be requisite before long is the firm conviction of

ONE WHO HAS BEEN A SANITARY OFFICER.

Cambridge, Feb. 6th, 1877.

REORGANISATION OF THE VETERINARY DEPARTMENT OF THE PRIVY COUNCIL OFFICE.

THE *Veterinarian*, in an article on the retirement of Dr. Williams from the office of Secretary to the department, and the appointment of Professor Brown to be professional officer, thinks that much good will arise from the head of the department being a member of the veterinary profession, and that the appointment will go far to secure the Government against the complaints of agriculturists, who saw in a secretarial head an insufficient power to watch over their interests. "We have heard much of this," continues the *Veterinarian*; "and knowing as we well do the professional ability of Professor Brown, his untiring perseverance, his capability of rightly directing others, and maintaining a staff in good working order, or acting if needs be independently, we may congratulate the department, the veterinary profession, and the agricultural community on his appointment."

Mr. Young, (Edinburgh.)—They were concluded in due time.

"NECESSARY INQUESTS."

To the Editor of THE LANCET.

SIR,—In your issue of Jan. 27th there is an annotation on "Necessary Inquests," in which you say, "It would be interesting to know the real explanation of this remarkable decline in the number of inquests which the coroner for Birmingham deemed it necessary to hold."

If you will kindly allow me space, I think I may presume to mention two cases which have occurred during the last few weeks, and which I believe to be illustrations of one method of reducing the number of inquests.

In December, 1876, I was called to a woman, aged twenty-four, who had been married a few months, and was supposed to be four months advanced in pregnancy. I found her insensible, pulseless, with cold extremities, blanched lips, and pinched countenance. She appeared to have two paroxysms of pain in the abdomen, separated by an interval of a few minutes, and died just as another practitioner (whom I sent for) entered the room. I saw her about fifteen minutes before she died; but I could only rouse her sufficiently to obtain unintelligible mutterings in answer to two of my questions, and, of course, I was unable to give a certificate of the cause of death. The account her husband gave was that he came home at 1 P.M., and found her complaining of severe pain in the abdomen, which increased until he came for me at 3.30. She was last seen quite well at 11 A.M. There was no external hæmorrhage whatever. The annotation referred to above concludes thus: "We cannot regard inquests as unnecessary in cases where no scientific evidence of the cause of death is available for the death register," and I submit that in the above case there was no such evidence.

Last Sunday I was called to a man, whom I found dead on my arrival. His friends said he had been drinking "heavily" on the Saturday, and not feeling well when he got up on Sunday he returned to bed, after being up a few minutes. There was no inquest held; and as no medical man saw him before death, there cannot in this case have been any "scientific evidence" of the cause of death in the absence of a post-mortem examination.

If it is really necessary to reduce the expense of inquests, would it not answer in this class of cases quite as well if an order were made for a medical man to make a post-mortem examination, and, if he found death to have been the result of natural causes, to give a certificate stating the cause as found at the post-mortem, without going through the form of an inquest? It would seem more rational to adopt some simple course similar to the above, and have scientific evidence, than to take the testimony of bystanders as to the cause of death.

I shall be glad if any of your readers, having had a case similar to the former one related above, would favour me with their opinion as to the diagnosis and results of post-mortem examinations where they have been made.

Yours faithfully,

Leeds, Jan. 30th, 1877. G. H. HIGGINS, M.R.C.S. Eng., &c.

REGISTERED FEMALE PRACTITIONERS.

OUR readers are doubtless aware that two ladies have for some years had their names on the Medical Register—viz., Elizabeth Garrett-Anderson, L.S.A. Lond., and Elizabeth Blackwell, M.D. Geneva, United States. Another has now been registered—viz., Eliza Louisa Walker Dunbar, of Bristol, with the qualifications of Licentiate in Medicine and Midwifery of the King and Queen's College of Physicians in Ireland.

M.D.—We do not think it would be necessary in the case of a practitioner of twenty-four years' standing.

PURE ANIMAL LYMPH AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—"A Public Vaccinator" inquires where he can get animal lymph for vaccination purposes. When it cannot be got naturally from the cow, I have been in the habit of vaccinating a heifer from lymph procured from a healthy child, and in general this plan does very well. If your correspondent cannot obtain it, I shall be glad to supply him with a few tubes.

At present, when the subject of vaccination and revaccination is calling forth so much comment, I may be allowed to give my experience of twenty years' practice, during which I have taken every opportunity of doing both.

About three years ago we had a severe epidemic of small-pox, and I revaccinated about 1000 adults; and although a good many of those revaccinated were seized with the small-pox, so mild were they that some of the patients scarcely required to go to bed, but were confined to the house, and not a single case revaccinated proved fatal of all those attacked. One young man that I learned of had been vaccinated when a few months old, but it had not succeeded, and his parents never got it done, and I offered to vaccinate him (as he was engaged in a public work where numbers of men were returning to their work after having had small-pox), but he said he did not believe in it. In three weeks afterwards he was seized with small-pox, and died on the twelfth day in a dreadful condition.

Like you, I rejoice to think that the highest personages in the land have set the noble example of being revaccinated, which all in every station would do well to imitate.

Yours truly,

Kilmarnock, Feb. 3rd, 1877. JAMES RANKIN, L.F.P.S.G., &c.

ROUGH AND READY LITHOTOMY.

A PAPER on "Indian Surgical Instruments" is published in the *Indian Medical Gazette* by Dr. R. Temple Wright, from which we glean the following account of the manner in which the native doctor cuts for stone. The patient is first drugged with cannabis indica (largely used in the country as an intoxicating agent, both as a sweetmeat and mixed with tobacco), and the bowels are cleared out, after which he is tied up in the usual lithotomy position. The practitioner then, without using any sort of staff, passes the index and middle fingers of his left hand into the rectum, while with his right hand he presses on the supra-pubic region, so as to bring the bladder and its contents as far as possible within the reach of the left hand. He then pushes the stone towards the perineum with the fingers which are in the rectum, and then with "an old razor" makes a free incision *transversely* across the perineum, "knowing and caring nothing about the anatomy of the region," but cutting deep enough to reach the stone, which he hopes will come out with a jerk when he has cut far enough. If it does not jump out, he either pulls it out with his fingers or forceps, or extracts it with a goat's horn or a rough scoop. Undue hæmorrhage, singularly enough said to be unusual, is stopped by the application of ashes and earth. We are reminded by the foregoing of a famous Italian quack, who was remarkably successful in performing lithotomy until an English surgeon taught him the anatomy of the region he hacked, after which no consideration or bribe would induce him to adventure on another operation.

E. L. F.—Soon.

VACCINATION RETURNS.

To the Editor of THE LANCET.

SIR,—In your annotations of Jan. 20th, under the heading "Vaccination and Death Certificates," you say, "Medical practitioners are requested by the Registrar-General to append to their certificates of the causes of death in cases of small-pox a statement whether the deceased has been vaccinated," and you express a wish that "in complying with this demand, practitioners will not embody mere hearsay evidence in their returns, the only valid proof of vaccination being the presence of undoubted marks in the usual situation." So far good; but permit me to say an additional item would be better. Statistics to be of value ought to be carefully drawn, especially when there are hovering over our heads a few acute though misguided birds of prey ready to pounce upon us, and damage, if not destroy, all the philosophic life which remains to steer our destiny. To state merely that someone died of small-pox after vaccination is to convey a false impression on which the untutored multitude will be likely to dwell, and, perchance, before that impression has been eradicated, hundreds or thousands may be doomed to a premature, preventable death. In a few words the certificate ought to state when the vaccination was performed, and whether satisfactorily so or not; how many cicatrices there are to be found, whether these are large or small, foveated or non-foveated; and in the event of the deceased person having had some important disease, such as scarlatina, or cholera, or typhoid, after the vaccination and prior to the attack of variola, such constitutional modifying disturber ought to be recorded. However careful and enthusiastic may be the operator, no one can insure uniform success in vaccination; and however much you may advise the guardians of a feebly protected infant to subject such infant to an experimental test at any given period, it is but rarely your advice is taken. The law has been satisfied, though but one vesicle arose; the parents' conscience has taken its dog-like slumber; and if in future time the poor passive infantile agent lose life or health, or sight or beauty, through an attack of that loathsome disease, small-pox, the deceivers and the deceived alike exclaim, "This is after vaccination! What is Jenner's protection worth?"

A register worded in the manner I have suggested would be of infinite value in dissipating the few clouds that remain as to the real value of vaccination, and how it ought to be performed.

Yours faithfully,

Gainsborough, Jan. 23rd, 1877. D. MACKINDER, M.D.

Inquirer.—The operation in question is not generally indicated in such cases; but neither is the administration of the drug mentioned generally indicated. Special circumstances may call for both. If skilfully performed, the operation could do no harm. The qualification in question is not a surgical one, and the operator could not legally recover for performing the operation.

Mr. S. Newby.—We know nothing of them.

PATHOLOGY AND TREATMENT OF WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—The theory lately put forth by Dr. Gueneau de Mussy, with reference to the pathology of whooping-cough, may or may not be correct; but it certainly is not new. If any of your readers will turn to Sir Thomas Watson's remarks on the pathology of whooping-cough, in his Lectures on Medicine, they will find the name of the late Dr. Ley associated with the identical suggestions now made by Dr. de Mussy, and some very interesting speculations by Sir Thomas himself on the same subject.

Your obedient servant,

Feb. 3rd, 1877. F.R.C.P.

To the Editor of THE LANCET.

SIR,—The gradual reduction of that too long list of diseases, which are, or have until recently been, regarded as irremediable, must be a source of satisfaction to every member of our profession. I do not know if the administration of croton-chloral in whooping-cough has any originality; but, after a somewhat extended trial, I regard it as almost a specific, and should be glad to have the opinion of other medical men as to its results. I have given it in gradually increasing doses, commencing with one grain twice or thrice a day, and almost without exception there has been a very marked reduction both in the violence and the frequency of the attacks.

I am, Sir, yours truly,

WILLIAM PAULSON, L.R.C.P. Lond.

Mount Sorrel, Leicestershire, Jan. 23rd, 1877.

THE GERMAN STAATS-EXAMEN.

To the Editor of THE LANCET.

SIR,—In criticising last week some points in Dr. Lyon Playfair's article on "Universities and Universities" in the January number of *Macmillan's Magazine*, you object to the writer's grouping of the Scotch Universities along with the German. You point out "a cardinal distinction between the German and the Scotch systems. In Germany the licence to practise is not conferred by the University, but by the State, whilst in Scotland the attainment of a degree is sufficient to place a medical graduate on the Medical Register." And you then go on to say that, if study for knowledge and not for examination distinguishes the German University, something very different characterises the teaching of the Scotch faculties. It appears to be a very nice point to determine as a matter of fact how much or how little either the German Universities or the Scotch keep examinations in view as an end, and whether the medical profession keep that end in view in the one country more than in the other. Certainly the "tutorial" method is as little at home in Scotland as in Germany. But my object in writing is to correct the obvious misapprehension that occurs in the above quotation as to the influence of the Staats-examen as the sole licence to practise. I derive my information from Professor Billroth's recent work on "Lehren und Lernen der Medicinischen Wissenschaften," &c., and from personal observation of an examination for the State licence at Würzburg in December last.

Since 1869 the candidate for the German State licence has had it in his power to pass his examination at any University within the Empire, from Berlin to Rostock, or from Königsberg to Strasburg. His examiners have been the teachers in the medical faculty, and for the most part professors in ordinary. It not unfrequently happens, from the wandering habits of the German students, that part at least of their examination is made by professors under whom they have not studied. Previous to 1869 all the candidates came to Berlin to be examined; and it is well known that the enormous falling off in the number of medical students at that University is in great measure owing to the fact that the Staats-examen can now be passed elsewhere. The examiners, as I said, are for the most part the professors in ordinary of the medical faculty. The three candidates whose examination in anatomy and physiology I attended at Würzburg were examined by Professors Kölliker and Fick conjointly, and one of the three candidates had studied anatomy and physiology at Bonn. It is no doubt true that the professors are not *ex-officio* the examiners. The examining commission for the State licence is nominated for each University seat by the Education Ministry from year to year, and may consist of other than the professors of the faculty. But as a matter of fact the professors are almost invariably renominated; and it is explicitly laid down in the ministerial regulations that the examinations in Anatomy, Physiology, *and Pathological Anatomy* respectively shall be conducted by examiners who made those subjects their special business.

It will thus appear that the fiction of examiners from without the teaching body is still kept up to a certain extent, so far as regards the licence to practise in the German Reich. In Austria this fiction does not exist, the medical professors at each University being *ex-officio* the examiners, with the addition of an assessor in Medicine and Surgery, and the State licence and the University degree being one and the same, as in Scotland. Readers of Professor Billroth's work will find a highly instructive account of the unavailing attempts made by the Prussian Ministry of Education in former years to carry out the principle of keeping the examination for the State licence out of the hands of the teaching body, who, for their part, do not seem to have wanted it. That attempt, as well as the attempt to secure a uniform standard by bringing all the candidates to be examined at Berlin, is now abandoned. Professor Billroth states that the duty of examining is felt by the professors to be exceedingly irksome; and I had myself the opportunity of seeing how the examinations for the State licence, which are entirely oral and practical, occupied many hours of the professors' time day after day. In spite of those personal inconveniences, the principle of examining by means of the teaching body appears to be accepted as the final solution of the examination difficulty, and Professor Billroth gives it as his opinion that a better plan cannot be found.

There is thus practically no difference between the qualifications of the Scotch Universities and the German State licence, so far as the position of the examiners is concerned. It happens more frequently to a candidate in Germany than in Scotland that his examiner in one subject or another has not also been his teacher, and otherwise there is almost complete similarity. In both cases the teachers are the examiners, and examinations are held at all the Universities; there is no greater guarantee for a uniform standard of excellence in the one case than in the other. Moreover, examinations as an end of the teaching are kept in view just as much and just as little in Germany as in Scotland.

There is, however, an apparent difference. In the German Empire the qualification to practise is a State licence, which confers no title. But so strong is the force of custom, and so vigorous is the law against assumption of titles, that almost every student in Germany who passes the State examination next proceeds, at considerable extra cost, to take the Doctor's degree of the University. The examination is an oral one, passed at a single sitting of the whole faculty. It has naturally no terrors for the student who has passed the State examination. But if, as sometimes happens in the case of foreigners, the State licence is not wanted and has not been taken, then the examination for the doctorate becomes a more protracted and real test. The well-known practice of defending a thesis is the only other preliminary to receiving the degree.

Professor Billroth points out that the Germans have, what the Austrians want—viz., the power of making their University degrees a badge of distinction, a mark of longer study and greater proficiency than the State licence is, and that the Universities might, if they chose, vie with each other in the severity of the tests that they impose. The remarkable fact remains, however, that the Germans, who are at the same time favourably known to us for their learning and research, have not availed themselves of this opportunity.

Your obedient servant,

CHARLES CREIGHTON.

Anatomical Museum, Cambridge, Feb. 5th, 1877.

THE RUGELEY HOME FOR INEBRIATE GENTLEMEN.

THE Rev. Mr. Grier, Vicar of Rugeley, has issued a second appeal to the public for subscriptions in aid of the above institution. The former appeal, while it was successful in enabling the Vicar to clear off debts, also made the existence of the Home so largely known, and brought such a number of applications for admission, that it was absolutely necessary to enlarge the premises. Hence an increased outlay is incurred, which the public are now asked to assist in defraying. The Rev. Mr. Grier calculates that for the institution to be properly furnished and appointed, and all debts to be paid, a sum of not less than £400 is required. Subscriptions may be sent direct to Mr. Grier.

W. H.—The Earlswood Asylum, Surrey.

CORONERS AND MIDWIFERY FEES.

To the Editor of THE LANCET.

SIR,—As a patient of mine, named Payne, whose wife had been attended in her confinement by me two years ago, had not paid the fee (a guinea), nor seemed inclined to do so, but, on the contrary, was rather insolent, I resolved to take him before J. J. Lonsdale, Esq., the Judge of the County Court at Rochester, and did so on the 24th instant.

On the 8th of December, 1875, two days before her delivery, which took place on the 10th, I was called in. She was ill, and complained of symptoms of approaching labour; but there was nothing then to be done. On the 10th a summons came at six o'clock in the morning. I was engaged with another accouchement. My assistant took my horse and chaise over, four miles distant, on a dark and cold December morning. It was over before he got there. I saw her about 10 A.M. the same day, and again on the 12th and 14th. Four personal and one other visit by my assistant. There seemed to be an idea from the first that, as the labour was over, there might be an opportunity of escaping payment of the fee, and that there might be no necessity for my calling again. My whole personal inclination was against the County Court action, because I felt they would resist it. It would, however, have been a bad example, and I determined to do it.

On the day of hearing, the defendant made some insulting remarks, which the Judge did not suppress, but with which, on the contrary, he seemed to be amused, although it was evident also he did not believe him, because one of his remarks was, "No, I do not think he (meaning myself) said that." The Judge said, complainingly and curtly, "Why do you undertake to attend such cases, so that two will happen at the same time? You cannot attend to both"! I said it was impossible to avoid it; and as to being over before reaching a case four miles away, it might happen to one who only lived a few doors down the street. "Do you," asked the Judge, "charge just the same fee when you are not able to be there in time?" I explained the fee was for attendance during the whole confinement period of nine or ten days from first to last, and, further, it was quite a lottery whether it would be over beforehand, or, as in many other cases, detain us all day or all night. In reply to this he said, "That is like my tailor, who charges me more because he does not get paid so much by other people"! I told him, as there was a previous contract, it had always been held, if even the parties did not send at all for a medical man at the delivery, they were bound to pay the fee. He said he had never heard of such a thing. (I knew he had ruled to the contrary against a medical man at Maidstone County Court some few years ago, which was animadverted upon in THE LANCET at the time.) He then wound up by saying, "I shall only allow you half a guinea." Feeling a little stung at the kind and tone of his remarks, and the licence he had given to defendant's tongue in Court, I said, "Your reasoning and decision are at variance with anything of the kind I have ever heard before, and it is scandalous for a medical man to get such abuse (as defendant's) here." He said, "I will commit you, sir, for contempt of Court." I said I had no intention to treat the Court disrespectfully. To which he answered, "But you are doing so, sir, under the semblance of respect. Leave the Court, or I will commit you"!

It seems hard to hear undignified comparisons of professional men with tailors, even from a Judge, and it had the flavour of insult; but no doubt I should have accepted his decision in silence. The whole thing seems irritating and irregular. A Judge himself is but human, and prone to the usual weaknesses and errors; but if he shows it, is it magnanimous to try to crush down his adversary with the power he holds? Nobody objects to the expediency and fair use of such power at all.

I am, Sir, yours obediently,
JOHN LANGSTON, F.R.C.S., &c.

Strood, Rochester, Kent, Jan. 28th, 1877.

*** Our correspondent's remarks on the Judge's conduct in this case seems to us so perfectly just and dignified that we cannot do better than express our complete concurrence in them. There is a fine simplicity in the suggestion that a medical man should not accept an engagement to attend two obstetric cases occurring at the same time.—ED. L.

A CASE FOR THE MEDICAL DEFENCE ASSOCIATION.

To the Editor of THE LANCET.

SIR,—I should like through your columns to call the attention of the Medical Defence Association to the fact that in this town we have what seems to me as cool a defiance of law as any I have witnessed for some time. An inhabitant of this town puts "Dr. Matchams, Unregistered," on his door-plate, and is in the habit of visiting patients and conducting (as I am informed) a pretty wide-spread general practice. Such a ruse as this I call "taking the bull by the horns" with a vengeance, and rather admire my fellow-townsman's ingenuity in dealing with what might seem to a modest man rather a difficulty. At the same time I cannot help thinking that I, in common with many others, must have wasted much time and much money also in vain, if (shall I say) so brazen a device is quietly tolerated by "the powers that be," and shall, moreover, consider for the future there is great virtue in "un" (as well as in your "if," as Shakespeare has it), should it prove powerful enough to stand in lieu of several years' professional study and the usual reliable diplomas. Yours &c.,

Lowestoft, Jan. 1877. ONE WHO LIVES AND LEARNS.

F.R.C.S.—The following members of our profession have occupied the position of President of the General Medical Council:—Sir Benjamin Brodie, elected November, 1858; resigned in June, 1860; died in 1862. Mr. Joseph Henry Green, elected in June, 1860; died in December, 1863. Sir George Burrows, elected in January, 1864; resigned in July, 1869. Dr. Paget, elected in July, 1867; resigned in July, 1874. Dr. Acland, elected in July, 1874; his term of office will expire in July, 1879.

Mr. J. Austin.—The case of attempted self-mutilation by a lunatic related by our correspondent is unfortunately not sufficiently exceptional to justify publication.

TREATMENT OF GOUT.

To the Editor of THE LANCET.

SIR,—I am able to bear strong testimony to the value of the principle of gentle and equable pressure in warding off an attack of gout, as suggested in a late number of your journal by Mr. Wynter, of Wandsworth.

Twice in my own person and several times in cases that have fallen under my care the most perfect success has followed the treatment, and in one case of severe erysipelas of the leg the result was equally satisfactory. In the winter of 1871, after much fatigue, whilst travelling in the south of France, I was roused from sleep by my first attack of gout. In my suffering I placed the palm of my hand over the painful part, and found to my surprise that I was immediately relieved. On removing my hand the gnawing and throbbing recommenced. I need scarcely say I was utterly unable to move my leg in bed, but found that I could move it when my hand was on the knee-cap. Acting upon this experience, some diachylon spread on felt was applied, and over this a flannel bandage. I was at once able to get up, dress, and proceed on my journey. Last year I was again attacked in the night. The same treatment was adopted, and by keeping a straight leg I was enabled to do my day's work as usual.

I have long thought that the pain of gout, by exhausting the nervous system and interfering with the nutritive processes, was the cause of the prolongation of the paroxysms, as well as of the malady itself. I now feel assured of this. The great art in the treatment is to have equable pressure. Any part left without pressure makes the whole part painful. It is sometimes difficult to effect our purpose at awkward angles, or in parts where the malady is deep-seated; but if pain remains I always mistrust the proper application of the plaster. Keep the capillaries empty, and there will be no pain. Whenever the plaster is removed, the skin should look white. As soon as it has been long enough removed for the skin to become red, the pain returns. Yours obediently,

Folkestone, Jan. 1877. ROBERT BOWLES, M.D., &c.

Mr. E. Willoughby.—The value of different milks, simple and condensed, assuming them to be equally pure, depends as much on the capacity of a particular digestive system as upon the constituent qualities of the food. There are two chapters in "Niemeyer," on Infantile Diarrhœa and Gastric Irritation, worth reading.

Medicus.—From the evidence, as placed before us, we should be inclined to ascribe the origin of the complaint to uræmic poisoning rather than to suppressed small-pox.

INFECTIOUS DISEASE ON THE RAILWAY.

To the Editor of THE LANCET.

SIR,—I am induced to send you an account of the following case, in order that the publicity given to it in your extensively read columns might be a means of making the railway officials more on the alert in preventing the admission into the carriages of persons presenting the appearances, or being in the least suspected, of having recently had small-pox.

The captain of a Hanoverian vessel called on me about a week ago to consult me about an eruption on his skin, which on examination I found to be mitigated small-pox. As we had been free from small-pox in this town for above seven years, I immediately took the alarm. I told him he could not be allowed to go back to his ship, and had him immediately sent to the cottage hospital, which we have provided here for infectious diseases. I then revaccinated the whole of his crew, and had the ship properly disinfected. On asking him how he thought he had got the infection, he said he was certain that he caught it in the railway carriage when travelling from London to the West India Docks; that a person got out of the carriage when he sat down, whom he strongly suspected, and that on sitting down he felt a peculiar kind of heat and smell which quite struck him.

Would it not be well, in order to prevent the disease spreading over the country, for the sanitary authorities of London to give orders to the railway officials to allow no one to enter the carriages that have spots on their face or other appearances of having had small-pox?

I am, Sir, your obedient servant,
T. STEPHENS,

North Shields, Jan. 1877. Medical Officer of Health for Tynemouth.

Sanitas.—YES. In London, the Board of Works may, with the assent of the Secretary of State, appoint a duly qualified medical practitioner, with fitting remuneration, to carry the Artisans' Dwellings Act into effect in the metropolis.

A CASE OF MUSCULAR FRACTURE OF THE CLAVICLE.

To the Editor of THE LANCET.

SIR,—An unusual case which came under my notice may be interesting to some of your readers.

A. K——, a strong, healthy man, an inmate of the Norfolk County Gaol, whilst assisting another man to lift a tray with contents, weighing 56 lb., felt a sudden snap in the shoulder. Each of the men had his hands placed in the handles at opposite ends of the tray, and were about to lift it through a window. The patient had his arm in a semi-flexed position, and the clavicle appears to have given way almost immediately on raising the tray from the ground. The fracture was oblique, situated midway between the sternal and acromial ends. The man had never been subject to any other fracture, and there was good union at the end of a fortnight.

Your obedient servant,

January, 1877. CHARLES CHAD. TURNOUR, M.R.C.S.

Alienist.—We believe Mr. Dillwyn, the member for Swansea, has announced his intention of renewing his motion for the appointment of a Select Committee to inquire into the working of the Lunacy laws.

X. Y.—If possible.

VACCINE LYMPH.

To the Editor of THE LANCET.

SIR,—Having unexpectedly vaccinated sixty-five persons in a large City establishment, I found myself suddenly out of lymph, and applied at the nearest Government station, the chapel in Tottenham-court-road, for a supply. The vaccinator, a most courteous and gentlemanly man, informed me that the regular course was to apply to the Local Government Board, Whitehall, and they would send me lymph by return of post. I have had no answer to my application, although it is now more than a fortnight since. My letter has not been returned by the Post-office, so I have a right to conclude it has reached those to whom it was directed. As a taxpayer I object to these persons taking their salaries, which I have no doubt they eagerly do, although they are anything but eager to supply lymph when urgently asked for and required.

Yours faithfully,

Bedford-square, Jan. 29th, 1877. SAMUEL RICHARDS, M.D.

To the Editor of THE LANCET.

SIR,—I am public vaccinator for Neath, and vaccinate an average of twelve or fourteen children weekly. I have always an abundance of lymph to spare, and I should be glad to dispatch a supply weekly. I think that some centre or depôt should be instituted for distribution, after receiving it, to applicants. Otherwise, without some such arrangement, some would, in all probability, receive an excessive supply, and others be disappointed. In the meantime I will endeavour to meet any demands which may reach me. I think that the best mode of transmitting tubes is to procure a piece of elder of sufficient length and thickness, and to burn out or otherwise extract the pith; the ends may be closed with gummed-paper, corks, sealing-wax, &c.

Yours faithfully,

Neath, Glamorganshire, Jan. 27th, 1877. JOHN RUSSELL.

ERRATA.—In Mr. Sampson Gamgee's paper on "Harvey and Cesalpinus," which we published last week, in line 40, col. 1, p. 160, for "veins," read *valves*. In the last line of footnote 16, same column, after "Ioutano," add *idea*. In the second line of footnote 18, for "salectu," read *selecta*. In line 9, footnote 21, p. 161, for "chiamuno," read *chiamando*.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Jas. Paget, London; Dr. J. Pollock, London; Mr. W. Adams; Mr. H. Lee, London; Prof. Macnamara, Dublin; Capt. Money, Southsea; Mr. Bush, Nottingham; Mr. J. Lane, London; Mr. Henry, London; Mr. Ranken, Kilmarnock; Mr. Prideaux, London; Mr. Hartshorn, Birmingham; Mr. Dowisthorp, London; Dr. Woodward, Worcester; Mr. C. B. Crabb, London; Dr. Dolan, Halifax; Mr. Berkeley, Poole; Dr. Creighton, Cambridge; Dr. Sheen, Cardiff; Dr. Galabin, London; Mr. Venmon, London; Mr. J. Langley, London; Mr. Holman, Reigate; Mr. Freeman, London; Mr. Newby, London; Mr. Trott, Hartshill; Mr. Iliffe, Kendal; Mr. Tait, Birmingham; Dr. Moffatt, Glasgow; Dr. Wearne, Colchester; Dr. Keith, Edinburgh; Mr. Fenton, London; Mr. Trenchard, Taunton; Mr. Young, Edinburgh; Dr. M'Cosh, Dundee; Dr. Hall, Jhansi, India; Mr. Ledebair, London; Dr. Daly, Dalston; Mr. Bishopp, Tunbridge Wells; Mr. Cann, Dawlish; Mr. Tully, London; Mr. Newby, Bournemouth; Dr. Garbutt, Gateshead; Dr. Ronan, Singapoor; Dr. Danlop, Glasgow; Dr. Morton, New Brompton; Dr. Steadman, Great Bookham; Dr. Thomson, Peterborough; Dr. Martin, Southampton; Mr. Hamilton; Dr. Austen, Tongue; Dr. Ballingall, Hull; Mr. Clark; Mr. James, Burton; Mr. R. Edwards, Coventry; Mr. Clayton, York; Mr. Watkins; Mr. Every; Mr. Strugnell, Holloway; Mr. Malins; Mr. Richards; Mr. Allwork, Brighton; Dr. Ball; Mr. Steinthal, Manchester; Mr. Holland; Dr. Smith, Kilburn; Mr. Fox, Warrington; Mr. Wills; Mr. J. Evanson, Douglas; Mr. Carlhian, Woodford; Mr. Lowe; The Lord Mayor of London; Inquirer; L.R.C.P.; A. B., Plympton; W. H.; E. L. F.; Y. Z.; A. M., London; M.R.C.S.; Discipula; The Ides of March; X.; F.R.C.P.; Fair Play and no Favour; Vigil; The Director-General of the Army Medical Department; X. O. T., Leeds; The Registrar-General of Births, &c.; Sanitary Officer; H. H.; Ignotus; A. B.; M.D.; M.B., Oundle; A. B. C., Exminster; Surgeon, Guisborough; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Elliott, Brixton; Dr. Hitchcock, London; Mr. Chitty, Shaftesbury; Mr. Cornish, Manchester; Dr. Watson, Lichfield; Mr. Brown, Tredegar; Mr. Layland, Wrexham; Dr. Mitchell, Chesterfield; Mr. Morgan, Lichfield; Dr. Edis; Mr. Mynors, Uttoxeter; Dr. Fleetwood, Aintree; Mr. Lawrence, Upavon: Mr. Wills, St. Lawrence; Mr. Hall; Mr. Webb; Mr. Coates; Dr. Ridpath, Great Driffield; J. T. T.; Medicus, Cleethorpes; A. R., Salisbury; M.D., Dublin; Medicus, St. Ives; A. B., Wednesbury; L.R.C.S.; Medicus, Northwich; Sigma, Tring; Medicus, Sheffield; Nemo; H. W.

Western Morning News, Bradford Observer, Shipley and Saltaire Times, Liverpool Mercury, Alliance News, Newcastle Daily Chronicle, Women's Suffrage Journal, Manchester Guardian, Academy, Daily Post, Examiner, Broad Arrow, Welshman, Land and Water, Sunday Times, Glasgow News, Pharmaceutical Journal, Figaro, Animal World, Sanitary Inspector, Worcestershire Chronicle, Metropolitan, East London Observer, Rock, Surrey Advertiser, Tunbridge Wells Gazette, Indian Medical Gazette, Analyst, Sanitary Journal for Scotland, Southern Gazette, West Middlesex Advertiser, Eastern Daily Press, Record, Daily Courier, Glasgow Herald, Press and St. James's Chronicle, Philadelphia Medical Times, New York Medical Record, and *Western Lancet* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, FEB. 9TH, 1877.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall	Remarks at 8 A.M.
Feb. 2	30·11	S.W.	50	51	...	52	48	0·02	Overcast
„ 3	30·27	W.	38	40½	...	50	37	0·04	Hazy
„ 4	30·17	N.	40	45	...	48	38	...	Bright
„ 5	30·36	W.	39	41	...	51	35	...	Hazy
„ 6	30·31	W.	49	50½	...	54	40	...	Overcast
„ 7	30·13	W.	51	53	...	59	49	...	Cloudy
„ 8	30·21	N.	45	48	...	58	47	0·03	Overcast

Medical Diary for the ensuing Week.

Monday, Feb. 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Woakes, "On some Sympathetic Ear Symptoms."—Dr. Thorowgood, "On two Cases of Cirrhosis of the Liver," with remarks.

Tuesday, Feb. 13.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—3 P.M. Hunterian Oration, by Sir James Paget, Bart.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Mr. Henry Morris, "On Dislocations of the Thigh; their Mode of Occurrence as Indicated by Experiments and the Anatomy of the Hip-joint."

Wednesday, Feb. 14.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

HUNTERIAN SOCIETY.—7½ P.M. Annual Meeting for Election of Officers.—8 P.M. Oration, by Dr. Moxon.

EPIDEMIOLOGICAL SOCIETY.—8½ P.M. Adjourned Discussion on Dr. Smart's paper on "Dengue."

Thursday, Feb. 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HARVEIAN SOCIETY.—8 P.M. Dr. de G. Griffiths, "On Fæcal Collections simulating Utero-ovarian Disease."—Mr. Osman Vincent, "On the Anatomy, Pathology, and Treatment of Knock-knee."

Friday, Feb. 16.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Parker, "On the Osteology of Birds."

Saturday, Feb. 17.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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